



Persistent Personal Data Vaults Empowering a Secure and Privacy  
Preserving Data Storage, Analysis, Sharing and Monetisation Platform

## D5.6

### DataVaults Platform – Version 1.0

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<b>Abstract</b>	<p>This document is a deliverable of WP5 and describes the final release (version 1.0) of the DataVaults platform and tools, with supporting documentation. Each component of the platform is assessed regarding its status, its integration to the platform and its code availability, installation details and the corresponding updated sequence diagrams.</p>
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## Executive Summary

This document presents Version 1.0 of the DataVaults platform. Version 1.0 is the final, stable and optimized release of the platform, which includes enhanced versions of the platform's backbone services and the UI. In this version, integration between the various components developed in the previous versions was finalized and the capabilities offered by the platform were extended to meet the defined User Stories. Additionally, this document provides the status of the platform components in Version 1.0 developed in WP3, WP4 and WP5, as well as screenshots from the platform usage and details on the technical assurance of the DataVaults platform. As a result of the improvements implemented for Version 1.0, all of the features planned for the final release of the platform are implemented and integrated and testing has been extended. Finally, based on the development and integration that happened so far, the document includes a detailed overview of the platform installation and also an overview of the release plan that was executed for the project.

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## Terms and Abbreviations

<b>ABE</b>	Attribute Based Encryption
<b>API</b>	Application Programming Interface
<b>CO</b>	Confidential
<b>DCL</b>	DataVaults Compensation Lifecycle
<b>DDAL</b>	DataVaults Data Analytics Lifecycle
<b>DDML</b>	DataVaults Data Management Lifecycle
<b>DLT</b>	Distributed Ledger Technology
<b>GUI</b>	Graphical User Interface
<b>MVP</b>	Minimum Valuable Platform
<b>SEAS</b>	Secure Analytics System
<b>SSE</b>	Symmetric Searchable Encryption
<b>SSO</b>	Single Sign-On
<b>TPM</b>	Trusted Platform Module
<b>VM</b>	Virtual Machine
<b>UI</b>	User Interface

# 1 INTRODUCTION

DataVaults aims to deliver a novel framework and architecture that leverages personal data, coming from diverse sources to help Individuals construct their unified personal data hub, collect at a single point all of their personal data in a secure and trusted manner, and retain ownership and control on what to share and with whom, also receiving compensation for the artefacts they place at the disposal of other third parties.

This document describes the final release of the DataVaults platform, while it also provides the updated status of the components, the usage of the platform, the continuous integration, testing and an overview of the executed release plan. It relies on the previously collected technical requirements and user stories presented in the deliverable D5.1 [1] and the architecture defined in D5.2 [2] and builds on the previous platform releases, documented in D5.3 [3] D5.4 [4] and D5.5 [5]. It also relies on the work performed in work packages WP3 and WP4, where the technical details of the components have been provided.

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## 1.1 DOCUMENT STRUCTURE

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The document is structured as follows:

Section 1 is the introduction, this document structure description and a presentation of the methodology followed towards the delivery of Version 1.0.

Section 2 provides the status of Version 1.0 of the DataVaults platform and more specifically the status of each component. The status is analyzed regarding the integration of the component with the platform, as well as its code availability, installation instructions, the VM, IP and port the component is deployed on and finally its Interfaces & Interactions. This Section also includes the description of the DataVaults methodology phases as part of Version 1.0 and an analysis on the project's lifecycle.

Section 3 provides a brief description and screenshots of the UI pages implemented for the Cloud Platform, the Personal App and the Secure Analytics Playground components and details regarding the platform installation.

Section 4 is dedicated to the technical assurance of the platform and presents details regarding the continuous integration in Version 1.0 and the testing done on this version of the platform.

Section 5 provides an overview of the release plan that was executed for the project.

Finally, section 6 concludes the document.

## 2 DATAVAULTS PLATFORM STATUS

### 2.1 OVERVIEW

As mentioned already in D5.3 [3], D5.4 [4] and D5.5 [5] the DataVaults Platform is split into two main groups of components, the DataVaults Cloud Platform and the DataVaults Personal App, both of which have implemented major changes moving into Version 1.0. In order to have a clearer look at the individual components that compose those 2 groups, each component's status, integration, code availability, installation instructions, VM, IP and deployment port and Interfaces & Interactions will be separately reported in the following sections. Regarding code availability, all repositories mentioned are private repositories that project members have access to and access can also be granted to individuals outside of the consortium upon request.

### 2.2 DATAVAULTS CLOUD PLATFORM

The DataVaults Cloud Platform is a cloud service offering a single-entry point for Data Seekers. All the components that are a part of it will be reported in the subsections below, in order to collectively form the status of the Cloud Platform as a whole.

#### 2.2.1 Cloud Platform Backbone

##### 2.2.1.1 Status and integration

The Cloud Platform Backbone currently offers Data Seekers the functionality to search over available datasets, filter them using various criteria and buy the ones they are interested in. Once bought, those datasets are available in their personal "My Vault" page and can be downloaded from there. Points are redacted from the Data Seeker's wallet, once a purchase has been made and the Data Seeker can view the current balance of their wallet in the relevant page. The transaction is also stored in the blockchain and thus both the Private Wallet and the Personal App can be notified in order to update accordingly. Data seekers also have the option to request datasets without a pre-defined price and get notified about the outcome of those requests. Furthermore, Data Seekers can create and share questionnaires, as well as browse a record of all the transactions they have performed. They can also view some diagrams regarding their statistics and usage of the DataVaults platform. The Cloud Platform Backbone is connected with the Personal App through various APIs and a message queue in order to communicate the necessary information regarding asset management, sharing and purchase. It is also connected to the Trusted DLT Engine and the Public and Private Ledgers, Cloud Platform Data Store and Data Stream & Contract Composer components in order to securely store the shared assets and necessary user information. Integration with the Access Policy Engine and the Query Builder ensures that Data Seekers can search and have access only to assets that match their profile. Connection with the Risk Management Monitor and the Privacy Metrics Dashboard has also been established in order to exchange necessary information about datasets and the privacy risk associated with them. The Cloud Platform Backbone is also connected with Secure Analytics Playground component in order to provide further analysis on the datasets and questionnaires of the data seekers. The mechanism to

handle and try to decrypt ABE encrypted datasets has also been developed for this final version of the platform, with the ability to protect Data Seekers from buying assets that they can't decrypt. Personas' creation, management and integration has been also completed for this release, providing the Data Seeker with the option to group datasets based on the created Persona and purchase them in bulk. Finally, the Cloud Platform Backbone has been localized to 5 languages (English, French, Italian, Spanish, Greek) in order to further help with its adaptation for the pilots' use cases.

#### *2.2.1.2 Code Availability and installation instructions*

The code for both the backend and frontend of the Cloud Platform Backbone is available at [https://gitlab.ubitech.eu/cs3/datavaults\\_cloud\\_platform](https://gitlab.ubitech.eu/cs3/datavaults_cloud_platform)), along with a comprehensive README file. Installation instructions are included therein, and the components have already been dockerized in order to further facilitate an easier installation process.

#### *2.2.1.3 VM, IP and port of the component*

The Cloud Platform is available at <https://platform.datavaults.eu> and runs on the Cloud Platform VM at port 8080.

---

### **2.2.2 Persona Generator**

#### *2.2.2.1 Status and integration*

Version 1.0 is ready and the full workflow for the persona generator is supported. It has not been integrated with the rest of the DataVaults Cloud Platform.

#### *2.2.2.2 Code Availability and installation instructions*

The code is available on Gitlab ([https://gitlab.com/datavaults/persona\\_generator/-/tree/main](https://gitlab.com/datavaults/persona_generator/-/tree/main)). The installation instructions are as follows:

1. first run 'docker build --tag persgen .' to download the docker image and set up the docker container
2. run 'docker run -d -p XXXX:5000 persgen' to run the container and app on port XXXX of the localhost

#### *2.2.2.3 VM, IP and port of the component*

The local port is set to 5000. When setting it up in a container the requirement would be to map the port to the localhost

#### *2.2.2.4 Interfaces & Interactions*

The purpose of the persona module is to provide users with the ability to automatically produce personas from a large dataset, having it analysed and providing a means to produce insights about people involved with specific services or domains. The interaction is as follows:

- The user selects a dataset that they want to produce personas for.
- The request is then sent to the API, which will then verify that the user has the right to access the dataset.
- The API then sends a request to the query builder and data explorer to retrieve the data from the dataset and return it as a CSV.

- The csv is then passed and loaded into a Pandas data frame<sup>1</sup> within the clustering module.
- Any non-numerical data is then encoded by assigning a unique numerical value to each unique key within any non-numerical columns, and then replacing each non-numerical key with the corresponding numerical value.
- The value for K is then determined by analysing the amount of data points within a dataset and using a predetermined ratio of n data points to K cluster to calculate K.
- The K-Means algorithm is then applied to the data frame.
- A column is then appended to the original data frame identifying which cluster each data point is in.
- The data frame is then returned as a clustered CSV.
- The csv is then sent to the analysis module and loaded into a Pandas data frame.
- Each cluster's mode demographic details are retrieved.
- These details are then matched to metadata within a component database containing profile images and user stories components.
- The IDs of the chosen components are returned to the analysis module as an array.
- Further clustering algorithms are performed to predicted other factors of the persona such as economic backgrounds, household situation, marital status, etc.
- These demographic details and insights are then stored within an array and passed back to the API.
- The array is then passed to the persona creation module.
- The persona creation module will then format the values present within the array into a standardized persona template.
- It will then retrieve the profile image from the database using it's ID and place it within the template.
- The final Personas are displayed to the user and options are presented to share the dataset back through the DataVaults Cloud Platform, or download the Personas.

---

<sup>1</sup> <https://pandas.pydata.org/pandas-docs/stable/reference/api/pandas.DataFrame.html>

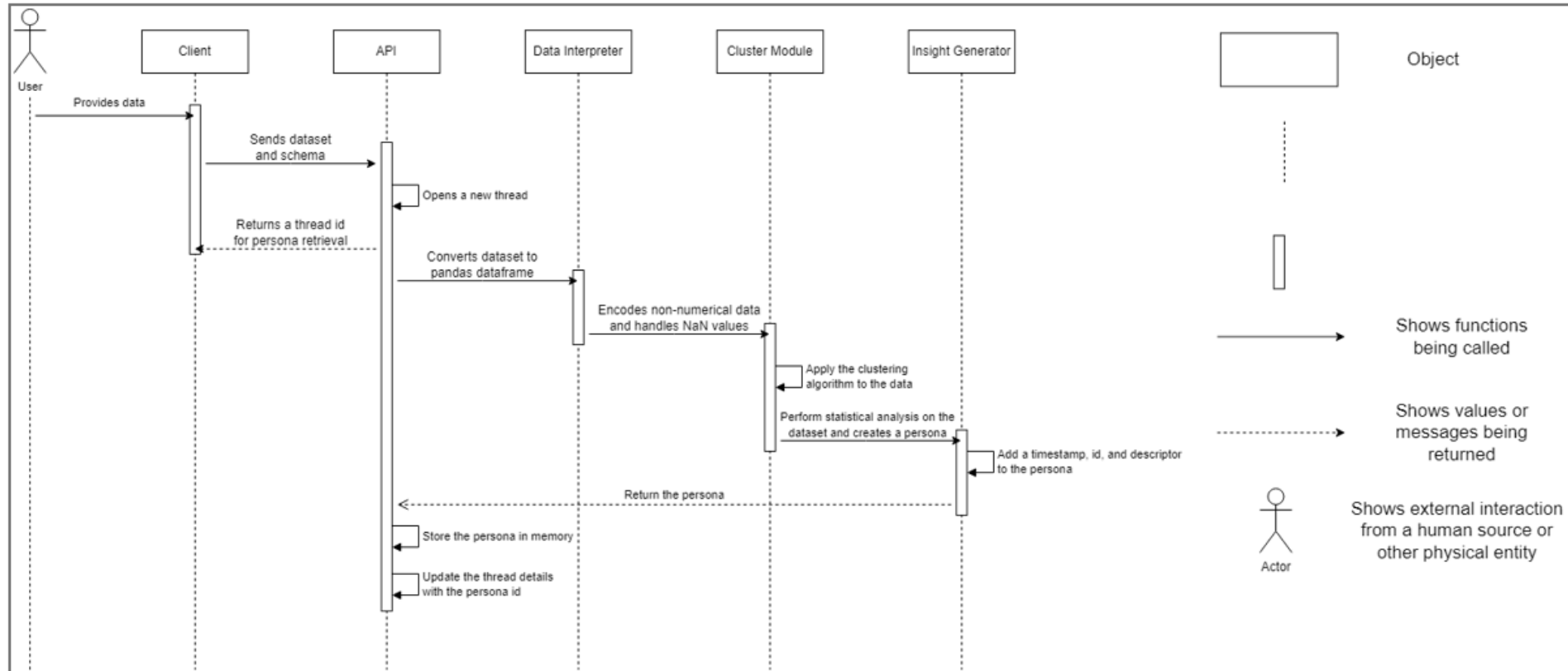


Figure 1: Persona Generator Sequence Diagram

### 2.2.3 Access Policy Engine

#### 2.2.3.1 Status and integration

The Access Policy Engine (APEn) functionality remains stable since the previous version of the platform. Considering the attributes related to a data seeker and comparing them to the allowed values set by the data owners in the access policies, the Engine grants the access to those data by that data seeker.

The functionality is exposed as an API, and it is called by the Query Builder. Also, the Engine uses APIs to obtain the attributes from the Keycloak system and the access policies from the blockchain.

#### 2.2.3.2 Code Availability and installation instructions

The code of the APEn is available in the DataVaults gitlab (<https://gitlab.com/datavaults/personalapp/policies-editor/engine-api.git>). The installation is described in this README file (<https://gitlab.com/datavaults/personalapp/policies-editor/engine-api/-/blob/main/README.md>), allowing the integration as a docker element. Currently, it is deployed as a docker where the Cloud Platform is running.

#### 2.2.3.3 VM, IP and port of the component

The application.properties file in the gitlab contains the Keycloak connection parameters and the port to access the component. Any change in this information should be updated correspondingly.

#### 2.2.3.4 Interfaces & Interactions

The interaction with the rest of the DataVaults architecture is described in the following diagram, and explained in more detail with those steps:

- (1) An external component asks to the Access Enforcement for checking the possibility to grant access to a list of assets that a Data Seeker or another external component wants to check. The parameters needed for this check are a list of Dataset\_ID and the attributes of the Data Seeker.
- (2) The Access Enforcement subcomponent, in order to manage the whole evaluation process, makes a loop for each ID of the Dataset\_ID list, accessing the policies related to each dataset and dividing the policies into Individual rules liable to be checked in a simple and repeatable process. The Decision Point gathers the Individual rule and the attributes of the Data Seeker and emits a verdict about the conditions involved.
- (3) For the evaluation of the rule, an external information is needed, and the Decision Point has to check it calling the External Information Point. In this case, that information is provided by the Keycloak tool, who manages the profiles of the different data seekers registered in the DataVaults platform.
- (4) If the rule is correct, the following rule in the list is sent to be evaluated. If the result of the evaluation is negative, those involved values and conditions are added to the non-conformities internal list, during the Enforcement process.
- (5) At the end of the loop where the whole list of policies has been evaluated, a Boolean value is assigned to this request, indicating if the access is granted or not.

- (6) When the permission is not granted, a list of reasons is also returned. This list has the form of non-conformities, indicating the policies or rules not fulfilled and the values of the attributes of external information that are not been accepted.
- (7) The outcome returned to the external component consists of a list of responses for each Dataset\_ID as follows:

[(Dataset\_ID1, granted, \_non\_conformities),

...,

(Dataset\_IDn, granted, non\_conformities)].

The number of Dataset\_IDs can be just one.

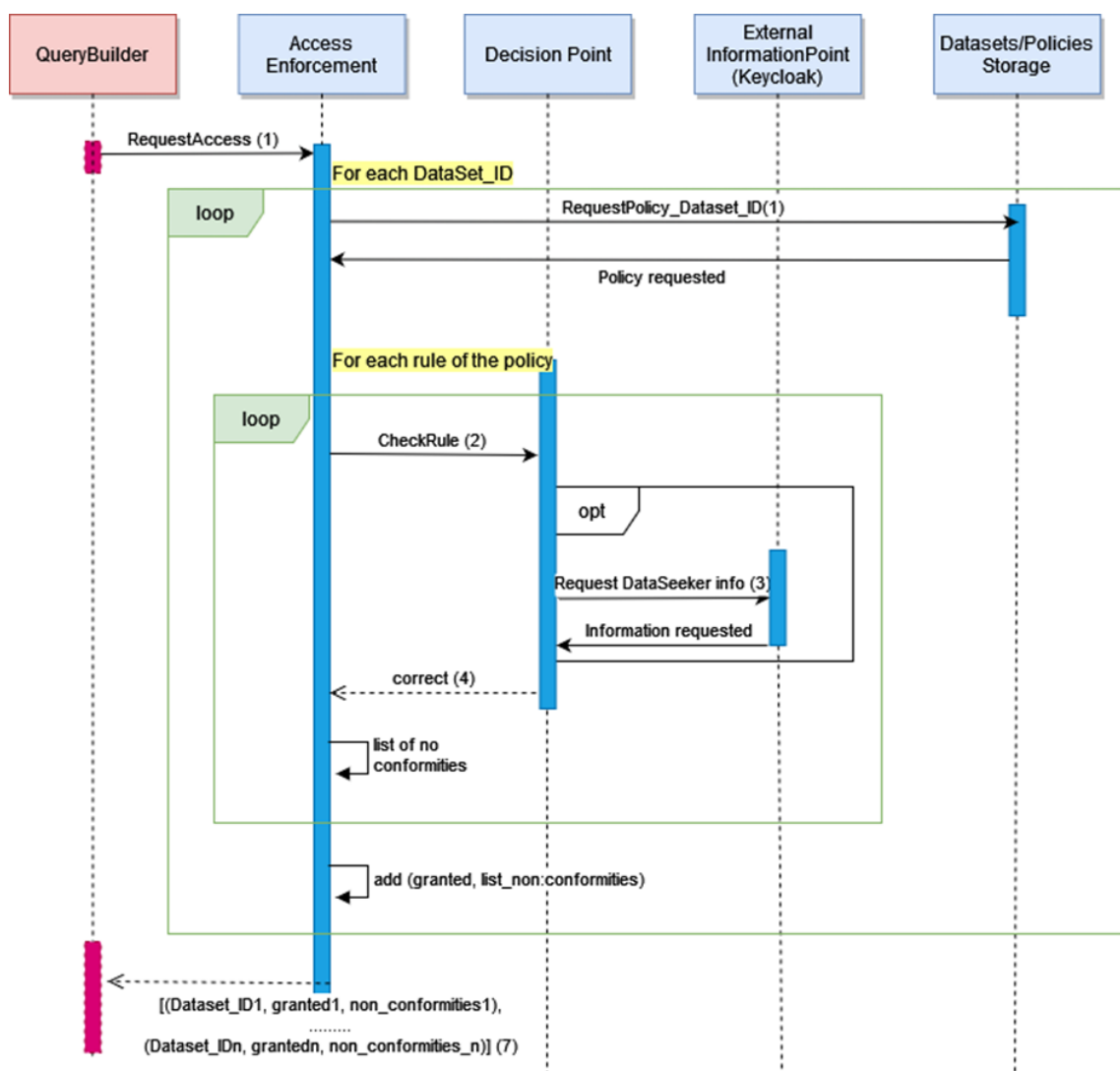


Figure 2: Access Policy Engine Sequence Diagram



## 2.2.4 Risk Management Monitor

### 2.2.4.1 Status and integration

The Risk Management Monitor provides an estimate of the impact that derives from the interconnections of the assets and datasets and provide a single estimation for the overall impact of a specific asset/vulnerability combination. A dedicated UI has been developed in order to offer the risk administrator the opportunity to manage the known risks, vulnerabilities and security flows of the DataVaults ecosystem.

### 2.2.4.2 Code Availability and installation instructions

The code for the Risk Management Monitor is available at <https://gitlab.ubitech.eu/cs3/rnd/h2020-datavaults-rnd/risk-management>, along with a comprehensive README file. Installation instructions are included therein, and the components have already been dockerized in order to further facilitate an easier installation process.

### 2.2.4.3 VM, IP and port of the component

The Risk Management Monitor is deployed on the Risk VM and can be accessed at <https://datavault-risk.euprojects.net>.

### 2.2.4.4 Interfaces & Interactions

The interaction of the components in the Risk Management monitor is described in the following diagram.

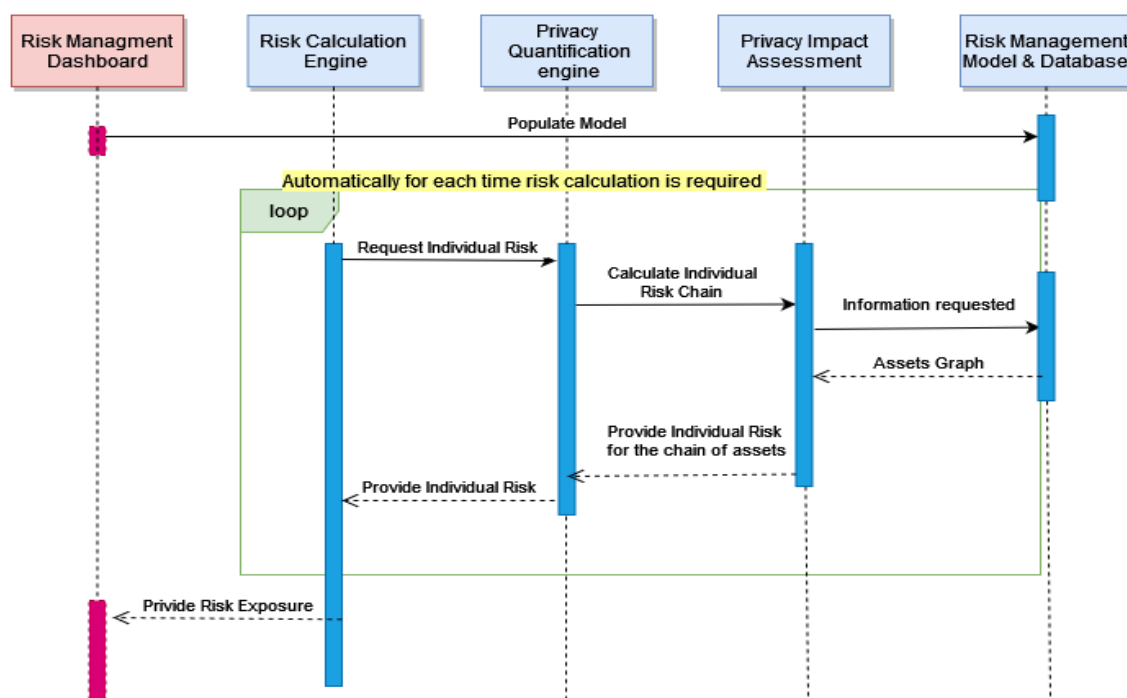


Figure 3: Risk Monitoring Calculation Sequence Diagram

## 2.2.5 Secure Analytics Playground

### 2.2.5.1 Status and integration

The Secure Analytics Playground 1.0, also known as SEAS, offers a mechanism to share, extract, and enrich data using various AI algorithms within of a secure platform, as specified in D5.4 [4]. Target users of SEAS in the context of DataVaults are mainly Data Seekers and Data Producers.

As it is shown in Figure 4, conceptually speaking SEAS 1.0 is a customization and deployment tool that given an initial set of datasets and/or questionnaires returns a customized analytic playground supported mainly by Jupyter and MLFlow as part of the analytics framework and Apache Superset as visualization framework incapsulating the set of datasets/questionnaires provided as part of the analytics playground. In this way the Data Seeker will be able to start in a decoupled environment the execution of any analytic over the datasets/questionnaires provided to generate added value over them in terms of analytic results and calculated metrics.

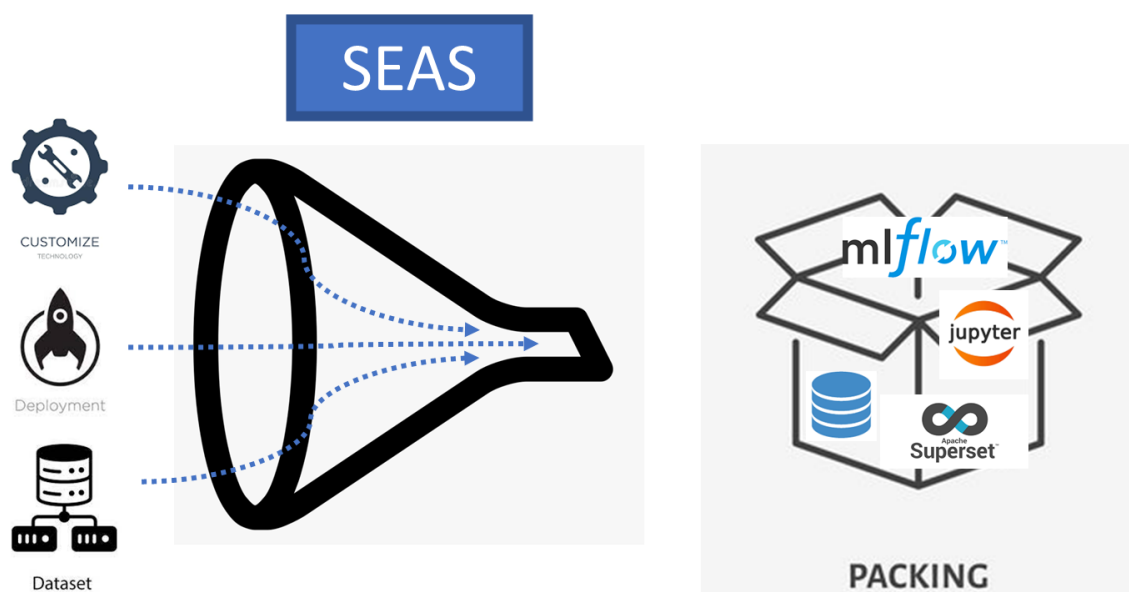


Figure 4: SEAS conceptual view

Now let's focus on a more technical illustration of SEAS 1.0. The architectural aspect of SEAS 1.0 is presented in Figure 5. In order to allow interaction with other current SW components in the DataVaults ecosystem, it is clearly identifiable at the top a public endpoint accessible via a rest API. In the case of the Personal Data Storage, SEAS 1.0 interacts with DataVaults components externally to retrieve the datasets and/or questions that are accessible to a certain user. For customization and deployment, it contains several artifacts, such as play setup, play deployer, and play configurator GUI.

A group of pure analytics playground components can be found underneath them, including the artifact manager, tracker, notebook manager, ML pipeline editor, and ML pipeline engine.

The components that support the visualization, primarily the visualization storage and the visualization engine, are lastly found at the bottom.

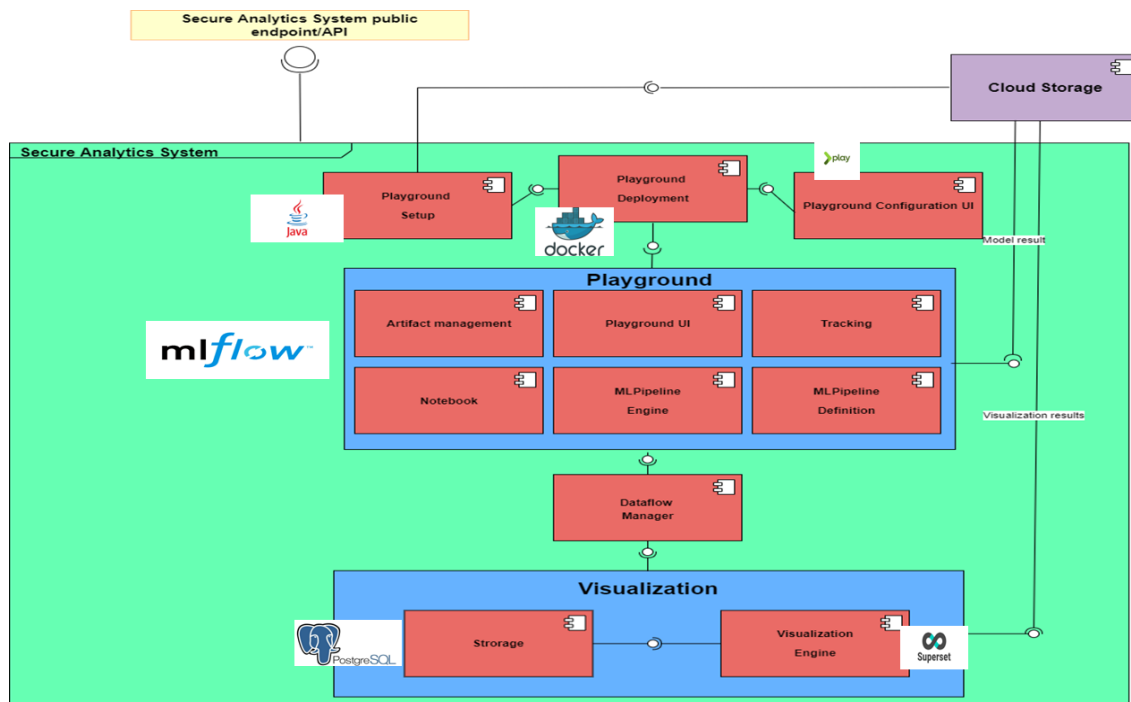


Figure 5: SEAS internal architecture

Considering now a deployment perspective of SEAS 1.0, as it is shown in Figure 6, the SEAS core components and the Personal Data Storage represented by red dashed lines are deployed into the DataVaults Cloud. However, the diagram illustrates how the playground, and the visualization framework might be installed on-premise in any available cloud or internally, and this is depicted by green dotted lines. It is also crucial to note that Ansible playbooks are used in both instances to assist deployment.

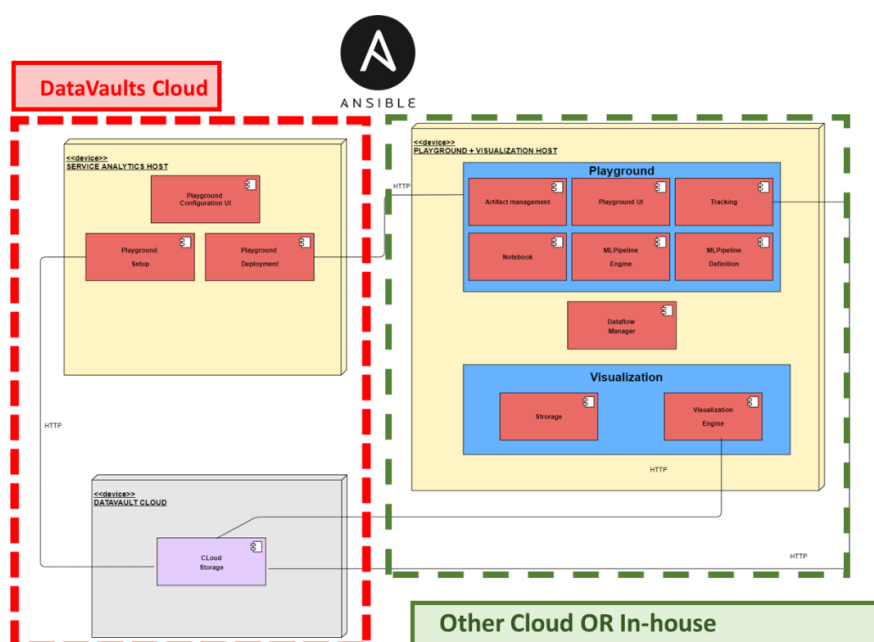


Figure 6: SEAS deployment view

For the SEAS Release 1.0, these are the new functionalities supported:

- Jupyter notebook support as part of the Analytics Playground technologies fully integrated with MLFlow and Apache Superset.
- Questionnaires retrieving from Data Explorer component as part of the SEAS local deployment process setup to generate the local deployment instructions.
- Provision of a generic Jupyter notebook template to analyse the answers provided in pilots questionnaires and visualise them as bar charts.

The interaction between the SEAS and the Demonstrators will be the main emphasis of the following steps. This cooperation will be concentrated on two key areas:

- 1) Create contact with the Data Providers—who are typically the Demonstrators—based on the functionality that the SEAS has previously deployed to improve those functionalities.
- 2) Determine the demands of the Demonstrators to enable additional functions or algorithms that assist in running, visualizing, and afterwards understanding their data in a better way based on their feedback.

#### 2.2.5.2 Code Availability and installation instructions

The URL where the code of the repository is hosted is: <https://scm.atosresearch.eu/ari/bdapc/datavaults/toreador-frontend.git> (this is a closed repository).

#### 2.2.5.3 VM, IP and port of the component

The “Service Analytic Host” will be run on Port 9000 while the Ansible should use Port 8080 in a non-secure mode and the port 8443 in a secure deployment.

#### 2.2.5.4 Interfaces & Interactions

This section aims to present the workflows and interactions between internal sub-components and external entities as shown in the sequence diagrams of SEAS's operation. The major player is the Data Seeker, who wants to analyze the data they have purchased and save or display the results.

The following are the primary workflows for SEAS:

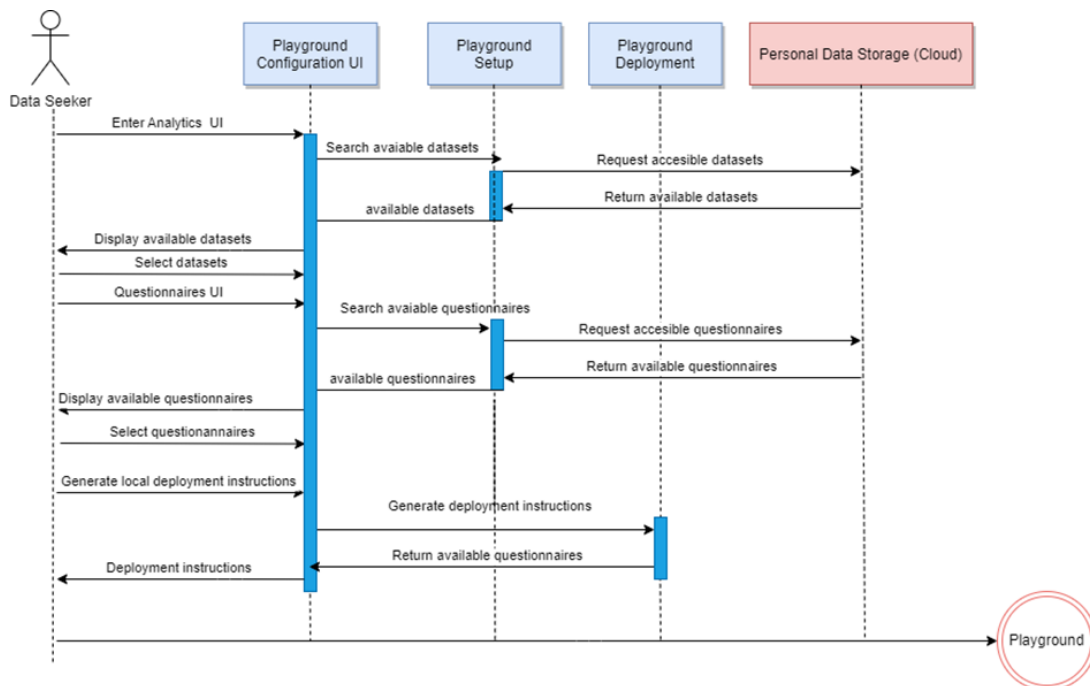
- 1) Analytics Playground setup and In-House deployment: This section describes the workflow for installing and configuring the analytics playground and visualization framework.
- 2) Analytics execution: This is the workflow that shows how the analytics playground was used to carry out the analyses.
- 3) Analytics visualization is the procedure related to the visualization of analytics results.

Next subsections provide a detailed view of the SEAS 1.0 main workflows.

##### 2.2.5.4.1 Analytics Playground setup and deployment (APSD)

The selection of datasets and/or questions from the user's personal data storage is the first stage in the APSHD workflow, as shown in Figure 7. Playground Configuration GUI interaction

is used for all these phases. The Playground Deployment module will receive the chosen datasets and/or questionnaires in order to produce the local deployment instructions.



**Figure 7: Playground Configuration setup and deployment workflow**

#### 2.2.5.4.2 Analytics execution (AE)

After the Playground infrastructure is set up as part of the AE workflow (Figure 8), the Data Seeker has the option of made custom Jupyter notebooks to conduct transformations through the chosen data sets. The notebooks also enable the development of algorithms for the Playground's machine learning models.

The different artifacts required to create the Machine Learning Pipeline will be chosen by the Data Seeker utilizing the Playground user interface. A pre-made pipeline will automatically be deployed, generating results for this model and performing a tracking of the execution of the model for traceability purposes, if the data model of the datasets chosen fits with the models (i.e. some models tailored to match certain personal datasets following the DataVaults personal data model).

The Data Seeker also has the option to use a notebook and a data flow to work with the models and the data before ultimately executing the model and completing this pipeline with the appropriate tracking of the results. On the other hand, if the model needs to be customized or the data model of the datasets does not match the pre-prepared models.

The analysis' findings might then be submitted to the Visualization module or uploaded to the Data Seeker storage.

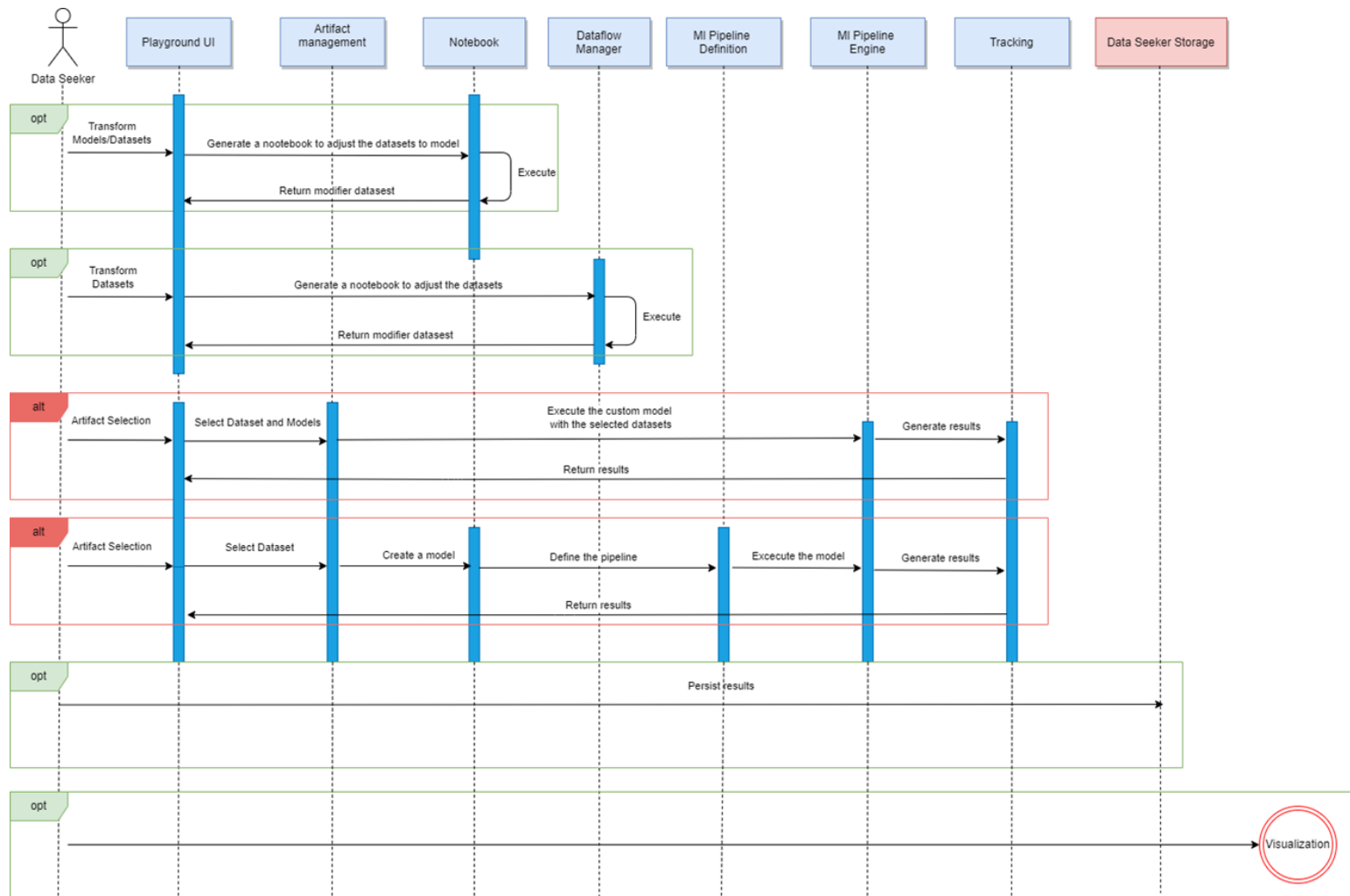


Figure 8: Playground execution workflow

#### 2.2.5.4.3 Analytics visualization (AV)

AV workflow shown in Figure 9 defines the mechanism at work in the viewing of analytics results. One of the options given to the Data Seeker is the possibility to visualize its results obtained after analytics playground execution. The Dataflow Manager (i.e., Apache NiFi) enables the creation of pipelines to modify the data structure of the results to the format expected by the visualization framework once the Data Seeker has chosen the analytical results to be visualized. This is done by using straightforward transformation processors.

The Data Seeker can choose whether the results can be submitted, visualize the data, and customize the visualization's characteristics.

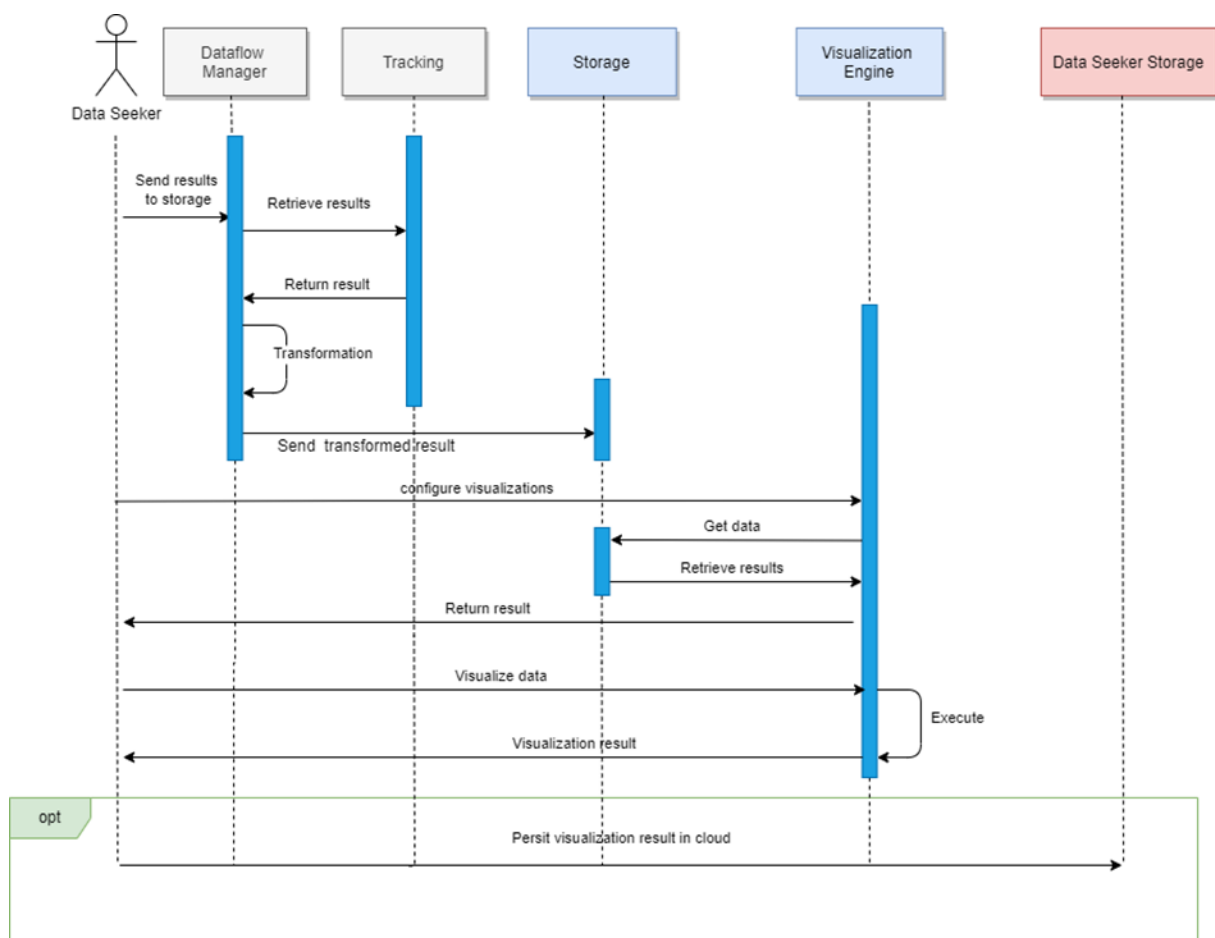


Figure 9: Visualization workflow

### 2.2.6 ABE/SSE Engine

#### 2.2.6.1 Status and integration

During the final period of the project, a lightweight ABE engine has been delivered and deployed based on the preparatory design and development work performed in the earlier stages of the project. The overall ABE engine makes use of a Trusted Authority that is operating in a reverse proxy server, which is used to generate keys and distribute them to the different stakeholders. The overall component integrated all the different entities that play a part for the delivery of Attribute Based Encryption into a single service which is offered to Data Seekers

to secure their attributes using the same policies as those provided by the Access Policy Engine.

#### *2.2.6.2 Code Availability and installation instructions*

The code for the ABE Engine is available at <https://gitlab.com/datavaults/ABEEncryption>

#### *2.2.6.3 VM, IP and port of the component*

The ABE Engine is part of the Personal App platform deployed at <https://personalapp.datavaults.eu/>.

#### *2.2.6.4 Interfaces & Interactions*

Figure 10 shows interactions of the ABE Engine in the three main functions it performs.

Initially, users register with trusted authority and take uuid as a random key. Then the data provider initiates the encryption preparation and sends the above-mentioned key, the policy object (as fetched from the Access Policy Editor) and the dataset itself. The user is then able to encrypt the dataset using AS encryption with his key. The access policy is then hashed in order to encrypt the user key with it. Since there can be multiple combinations if the access policies have multiple values for the same attribute, an access key for each combination is generated. For each hashed policy the user key is encrypted, providing multiple access keys in case of multiple policies.

For the decryption side the data seeker knows the policy attributes expected for the given dataset and in which order they are expected. Using this order and the expected attributes, the data seeker is able to use his/her own values for the policies to construct the key and attempt to decrypt. The data seeker can be also made aware of all the policy keys so that he/she can check that his/her generated CPK key is in the list (for optimization purposes and this can be skipped).

Finally, for each access key there is an attempt to decrypt the data using the cpk key. If this is successful, then this is used to decrypt the data



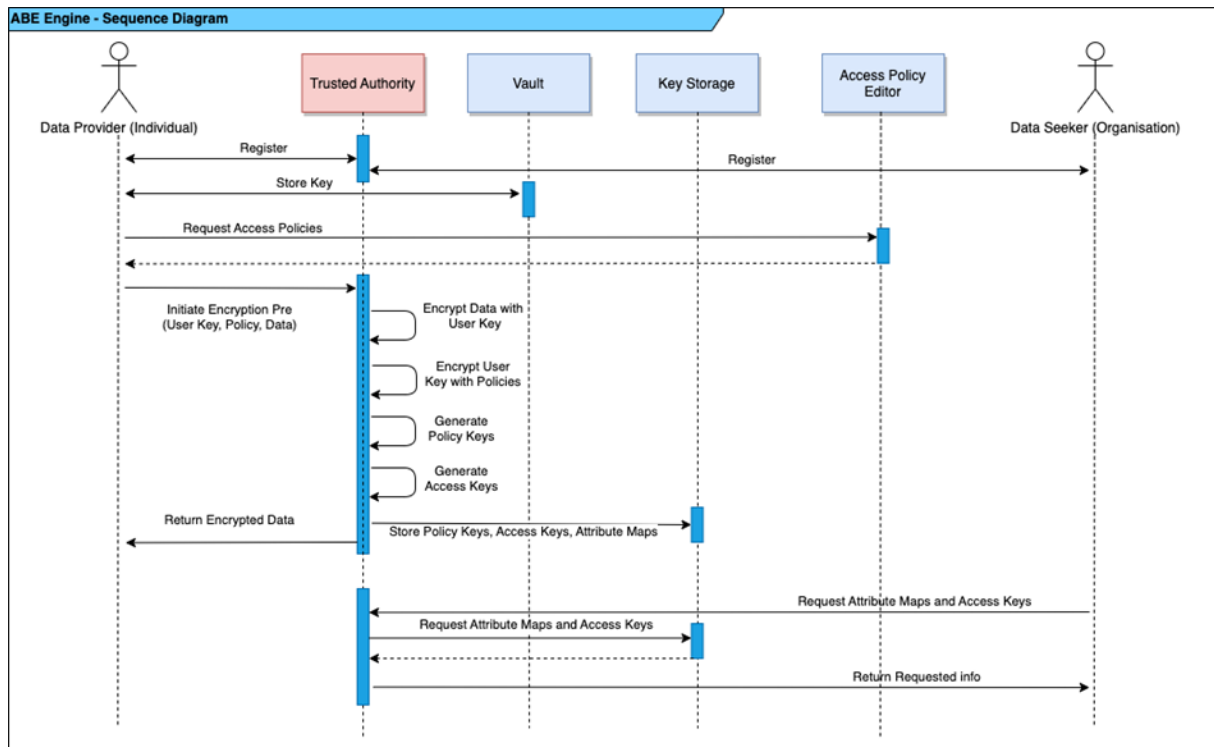


Figure 10: ABE Engine Workflow

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## 2.2.7 Data Stream & Contract Composer

### 2.2.7.1 *Status and integration*

The Data Stream and Contract Composer is responsible for enabling the data sharing actions from the side of the Data Seekers, whether these have to do with the purchasing of assets already made available over the platform, or with assets that are requested directly from data owners (could be either datasets, or questionnaires). As such, this component allows data seeker to either view and get data assets after buying them, or to construct data requests and define questionnaires. The complete component has been implemented already and integrated to the relevant pages of the cloud platform.

### 2.2.7.2 *Code Availability and installation instructions*

The code of the Data Stream and Contract Composer has been integrated to the Cloud Platform backbone.

### 2.2.7.3 *VM, IP and port of the component*

The Data Stream and Contract Composer is part of the cloud platform deployed at <https://platform.datavaults.eu>.

### 2.2.7.4 *Interfaces & Interactions*

The following figure presents a sequence diagram of the operation of the DataStream and Contract Composer, showcasing the workflow and interactions that happen between the internal sub-components as well as other DataVaults external components. The main actor is the Data Seeker who wants to acquire personal data from the Individual, either by requesting personal data already shared with the platform by the Individual or by requesting other kind(s) of personal data directly from the Individual.

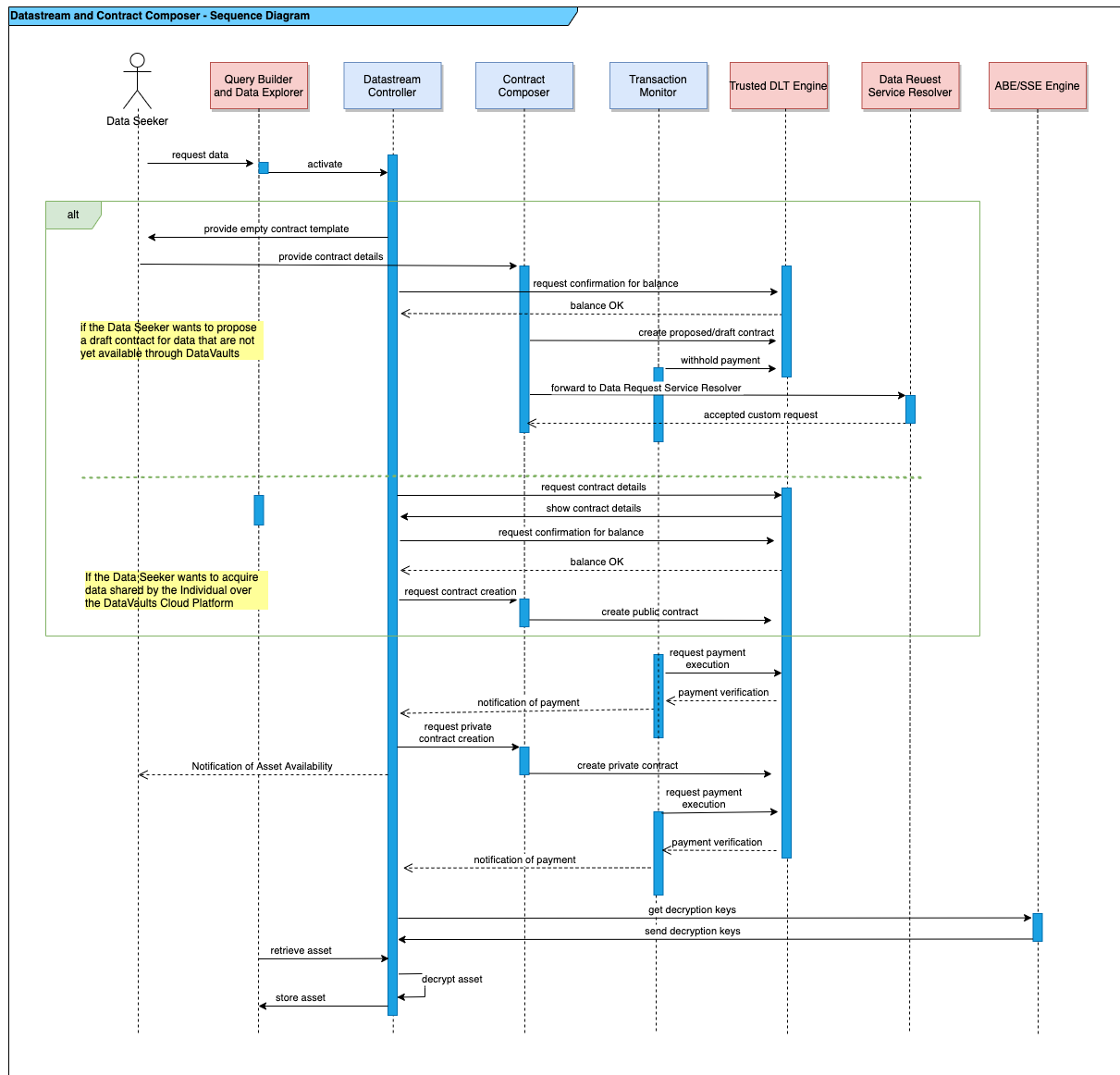


Figure 11: DataStream &amp; Contract Composer Sequence Diagram

## 2.2.8 Trusted DLT Engine and the Public and Private Ledgers

### 2.2.8.1 Status and integration

All features regarding the secure logging of all data trading transactions have been successfully implemented, along with support for executing queries for retrieving data from the deployed contracts. Finally, the execution of more complex ledger queries regarding data trading transactions have been finalized.

### 2.2.8.2 Code Availability and installation instructions

The URL where the code of the repository is hosted is <https://gitlab.com/datavaults/blockchain-dlt-engine>, where also detailed installation instructions can be found in the README file.

### *2.2.8.3 VM, IP and port of the component*

The DLT Engine and the Ledgers utilize 8 VMs in order to provide high fidelity and availability of storing and querying services to the rest of the DataVaults platform

### *2.2.8.4 Interfaces & Interactions*

The following diagram displays the workflow and interactions that take place between the internal Trusted DLT Engine subcomponents and the external components and actors. The diagram displays all the aforementioned characteristic flows: the writing and reading of all types of contracts from the distributed ledgers (“Data Sharing Contract and Data Trading Contract”), the reading of block transactions from the private ledger and the personal wallet for an Individual’s compensation (“Block Information Request”), and the data queries that can be executed by Data Seekers when getting access to the public ledger (“Metadata stored in Public ledger and Data Seeker executing Data Queries”).

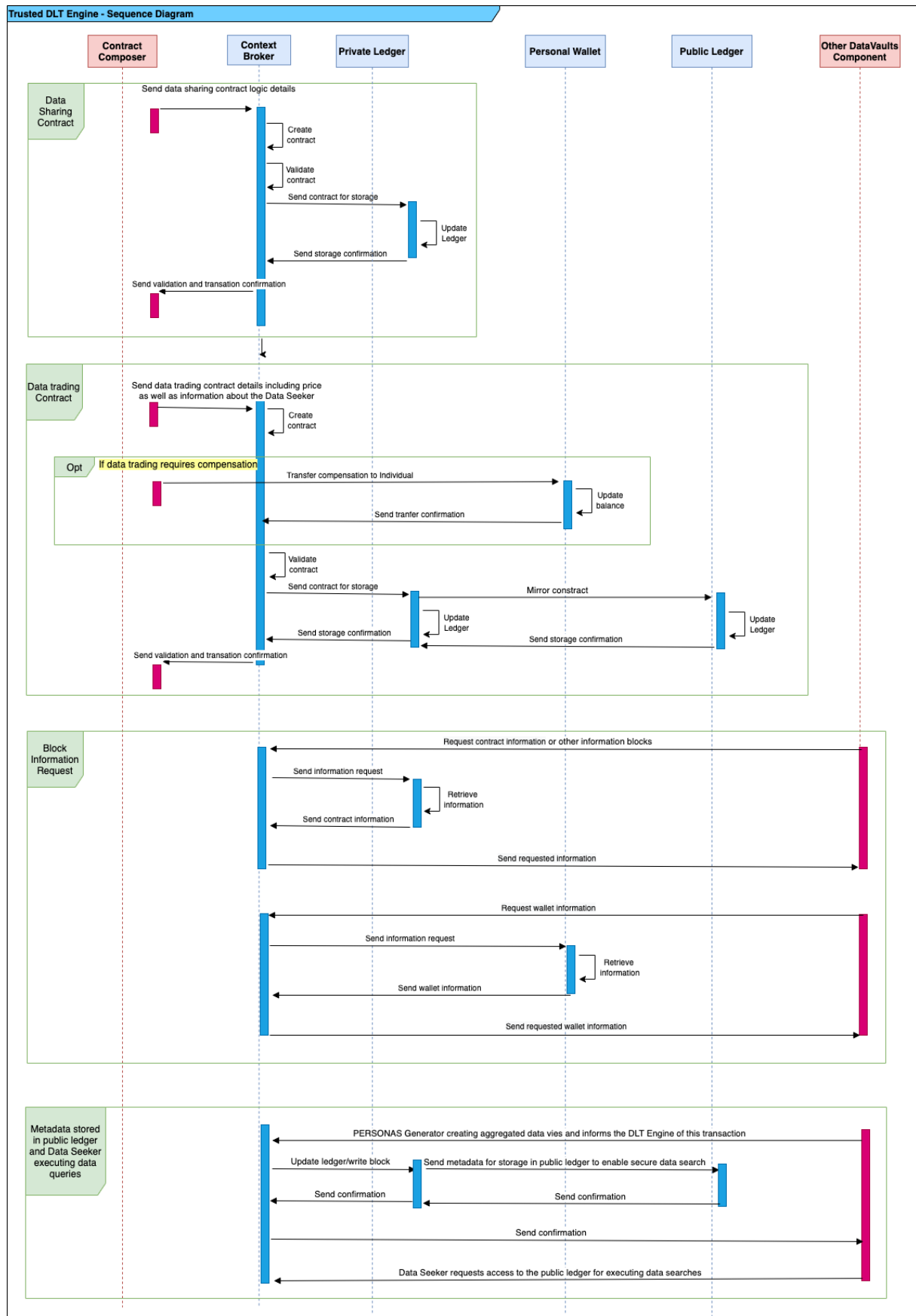


Figure 12: Trusted DLT Engine Sequence Diagram

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## 2.2.9 Query Builder

### 2.2.9.1 Status and integration

The query builder serves as repository for the metadata. All metadata is managed and stored as linked data in an appropriate format described in the DataVaults data model. It consists of two components, a triple store, and the query builder itself providing a convenient API which is used by the rest of the cloud platform. The API allows the management of catalogues and datasets and offers query capabilities which hiding the complexity of linked data by reducing the query expression to simple JSON. For more complex queries, the triple store exposes a fully SPARQL 1.1 endpoint.

### 2.2.9.2 Code Availability and installation instructions

The code is hosted in the repositories contained in this gitlab group: <https://gitlab.com/datavaults/query-builder>. All components have been dockerized for an easier installation process. Docker compose files to deploy the services in an orchestrated fashion can be found in the deployment repository as well. A README contains further build, run and configuration instructions.

### 2.2.9.3 VM, IP and port of the component

The Query Builder is part of the cloud platform VM and is run via a docker compose file containing the virtuoso triple store and the query builder. The API endpoint of the query builder is exposed only internally to the VM for other components of the cloud platform on port 8082. The SPARQL endpoint of the triple store is exposed on port 8890.

### 2.2.9.4 Interfaces & Interactions

The following diagrams display the workflow and interactions that take place between the Query Builder and the external components and actors. The diagram displays a characteristic usage scenario of the Query Builder. The main actor is the Data Seeker who wants to search for data assets with specific characteristics that are available for sharing in the DataVaults Cloud Platform. Initially the Data Seeker enters the central Q/B Panel, where he can see his local assets and fire up the Q/B Composer where is provided with the various options to compose her query. She selects the options that match her needs. She has the option to load an existing saved query, from an older session and edit its parameters. Then the Q/B Engine takes the user input and creates a query based on the configuration. The Q/B Engine triggers the SSE engine in order to create an SSE query. The queries are executed on the Encrypted and the Unencrypted Data Lake, and the responses are sent to the D/E after any results the user is not eligible to see have been eliminated. In case of a search over encrypted data, the SSE Component is triggered, and the results are forwarded to the Q/B Panel. The user can also set a query or retrieve the results though an API, view those through the Q/B Panel and save the query for future use.

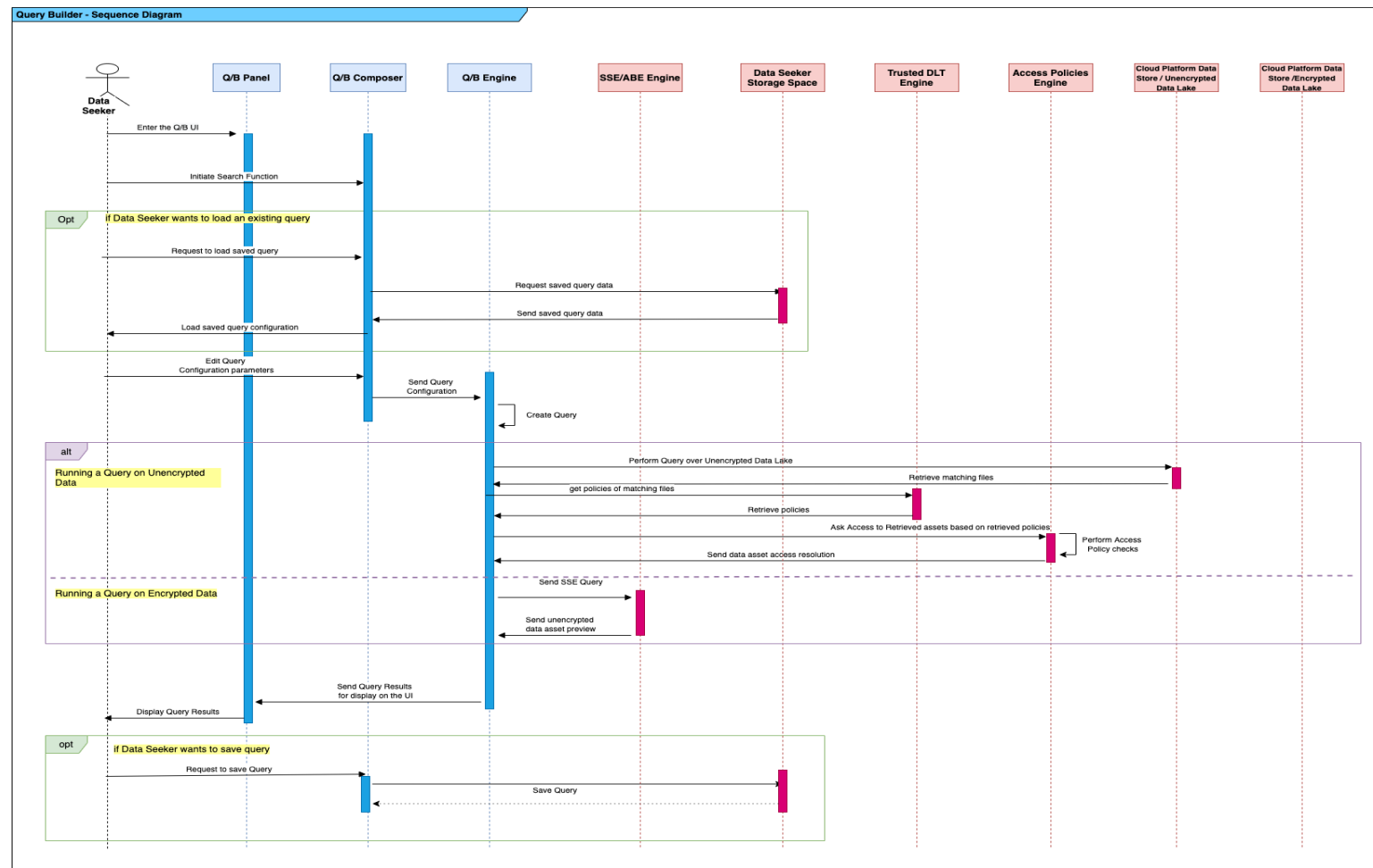


Figure 13: Query Builder Sequence Diagram

## 2.2.10 Cloud Platform Data Store

### 2.2.10.1 Status and integration

The Cloud Platform Data Store is fully functional in version 1.0 of the platform and stores all the necessary user and asset information for the seamless operation of the platform. It is connected only to the Cloud Platform Backbone through a database connection.

### 2.2.10.2 Code Availability and installation instructions

The Cloud Platform Data Store code and installation is done in conjunction with the Cloud Platform Backbone, as can be seen in the relevant Section 2.2.1.

### 2.2.10.3 VM, IP and port of the component

The Cloud Platform Data Store is part of the cloud platform deployed at <https://platform.datavaults.eu>.

## 2.2.11 Data Explorer

### 2.2.11.1 Status and integration

The Data Explorer has been integrated with the Cloud Platform backbone and has been incorporated in the “My Vault” page of the platform, in order to allow the dataseeker to easily browse through and download their owned datasets and download them.

### 2.2.11.2 Code Availability and installation instructions

The Data Explorer code and installation is done in conjunction with the Cloud Platform Backbone, as can be seen in the relevant Section 2.2.1.

### 2.2.11.3 VM, IP and port of the component

The Cloud Platform Data Store is part of the cloud platform deployed at <https://platform.datavaults.eu>.

### 2.2.11.4 Interfaces & Interactions

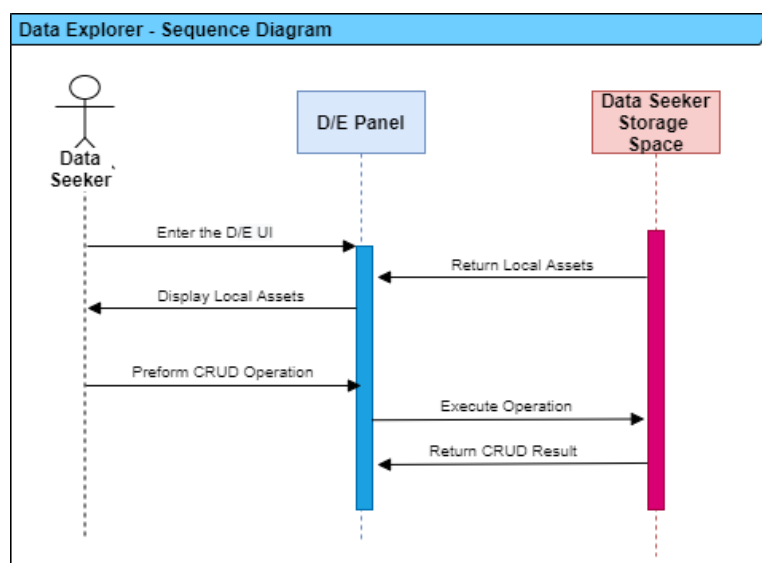


Figure 14: Data Explorer Sequence Diagram



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## 2.3 PERSONAL DATAVAULTS APP

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The Personal DataVaults App is at the moment offered as a cloud-based application used by Individuals to operate and exchange data seamlessly. All the components that are a part of it will be reported in the subsections below, in order to collectively form the status of the Personal App as a whole.

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### 2.3.1 Personal App Backbone

#### 2.3.1.1 *Status and integration*

The Personal App backbone is the main application that is used by data owners to collect and share their data and is housing all the necessary components that are offered to these users. It is communicating with the DataVaults Cloud platform through various APIs while messaging communication is done via RabbitMQ. As far as it regards the other components that are part of the Personal App, communication is there also facilitated via APIs, connecting the different dockerized components. A fully functional version of the Personal App has been delivered in the beta release, and has been updated in v0.50, improving the interconnection with the new components released under this version, while different connectors for accessing data from demonstrators, Twitter and the DataVaults Mobile App have been implemented. Moreover, localisation of the UI has taken place, and now the Personal App supports English, as well as the 4 different languages of the demonstrators.

In the final release version of the system (v1.00), various UI improvements have been implemented in the Personal App backend and frontend, internal libraries were updated and the integration points with the rest of the components were tested following the delivery of the final updates of those components.

#### 2.3.1.2 *Code Availability and installation instructions*

The code for the Personal App Backbone backend is available at: <https://gitlab.com/datavaults/personal-app-backend> while the frontend is at: <https://gitlab.com/datavaults/personal-app-frontend>, along with a comprehensive README file. Installation instructions are included therein, and the components has already been dockerized in order to further facilitate an easier installation process

#### 2.3.1.3 *VM, IP and port of the component*

The Personal App is available at <https://app.datavaults.eu/> and runs on the Personal App VM at port 8080.

#### 2.3.1.4 *Interfaces & Interactions*

The following figure presents a sequence diagram of the operation of the DataVaults Personal App component, showcasing the workflow and interactions that happen between the internal sub-components as well as other DataVaults external components. The main actor is the Data Provider (Individual) who wants to log into the App and conduct any other action which is offered to him through the other components which are interconnected under the overall DataVaults Personal App.

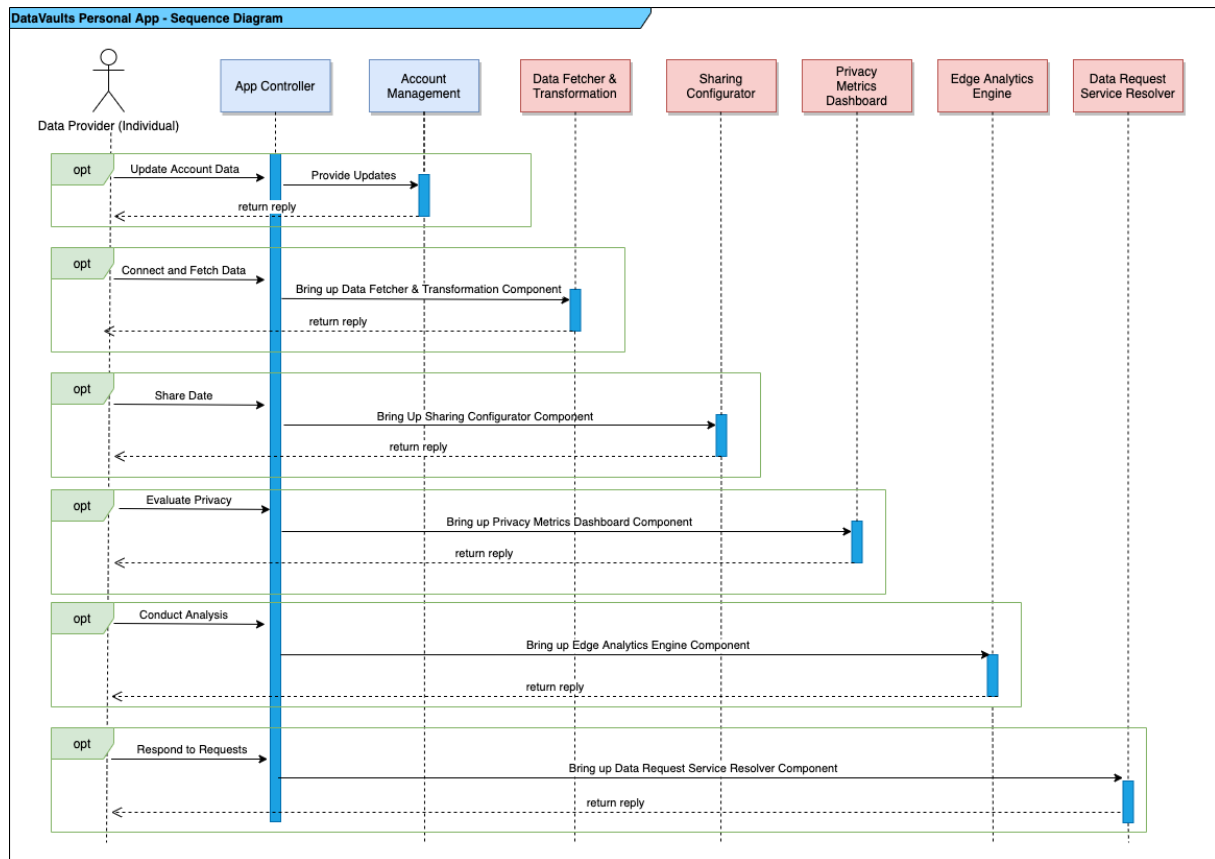


Figure 15: Personal DataVaults App Sequence Diagram

## 2.3.2 Data Fetcher & Transformation

### 2.3.2.1 Status and integration

The Data Fetcher & Transformation component is integrated into the Personal App Backbone and is used on the “Connect Source” page of the platform to manage and connect the sources that are fetched. Current available sources are Twitter, Andaman7, MIWenergia, Olympiakos, Prato and the DataVaults mobile app with Google Fit, Location and Routes data and a Fileupload.

### 2.3.2.2 Code Availability and installation instructions

The code is hosted in the repositories contained in this gitlab group: <https://gitlab.com/datavaults/personalapp/data-fetcher-transformer>. All components have been dockerized for an easier installation process. Docker compose files to deploy the services in an orchestrated fashion can be found in the deployment repository: <https://gitlab.com/datavaults/personalapp/data-fetcher-transformer/deployment>

### 2.3.2.3 VM, IP and port of the component

The Data Fetcher & Transformation service is available internally on the Data Fetcher VM. It runs in a docker compose cluster and exposes the API on port 8080. It also exposes a RabbitMQ on port 5672 to which the Personal App backend connects to.

### 2.3.2.4 Interfaces & Interactions

The following sequence diagram showcases the typical workflow and interactions happening between this feature and external components, like the user and a user defined data source as well as between the internal components.

The user will want to add new data sources and modify or delete ones that were already added. They can choose out of a range of pre-programmed data sources and configure them with options like Access Credentials and harvesting interval. Additionally, the user can push data, by uploading it manually to the upload component.

The internal scheduler will then decide automatically, based on the configurations, when to fetch the data from which data source. It will then start the Data Fetcher Module which will forward the data, after fetching it, to the next module. After going through the whole pipeline where the data gets transformed into the Data Vaults data model, analysed and enriched with linked data, it is stored in the Linked Data Storage.

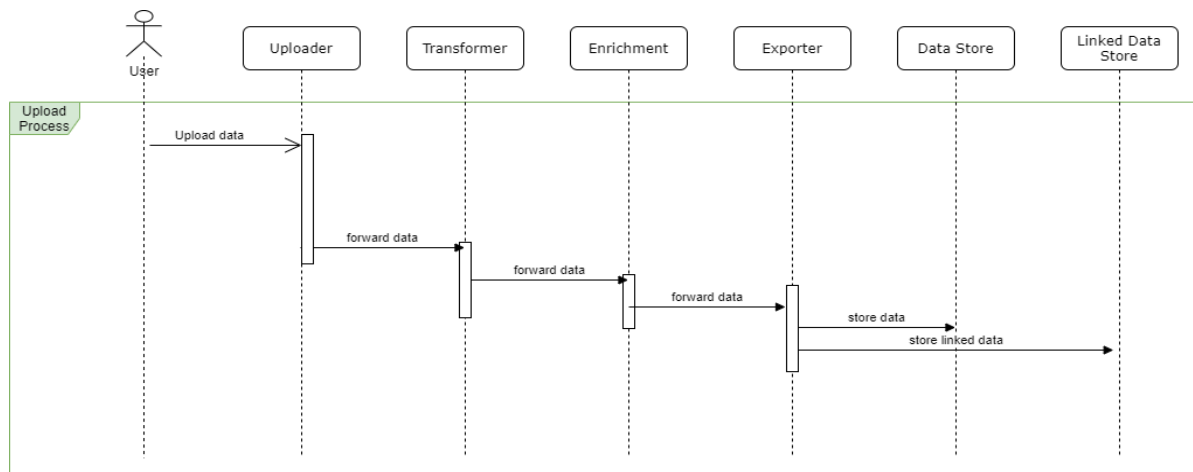


Figure 16: Data Upload Process

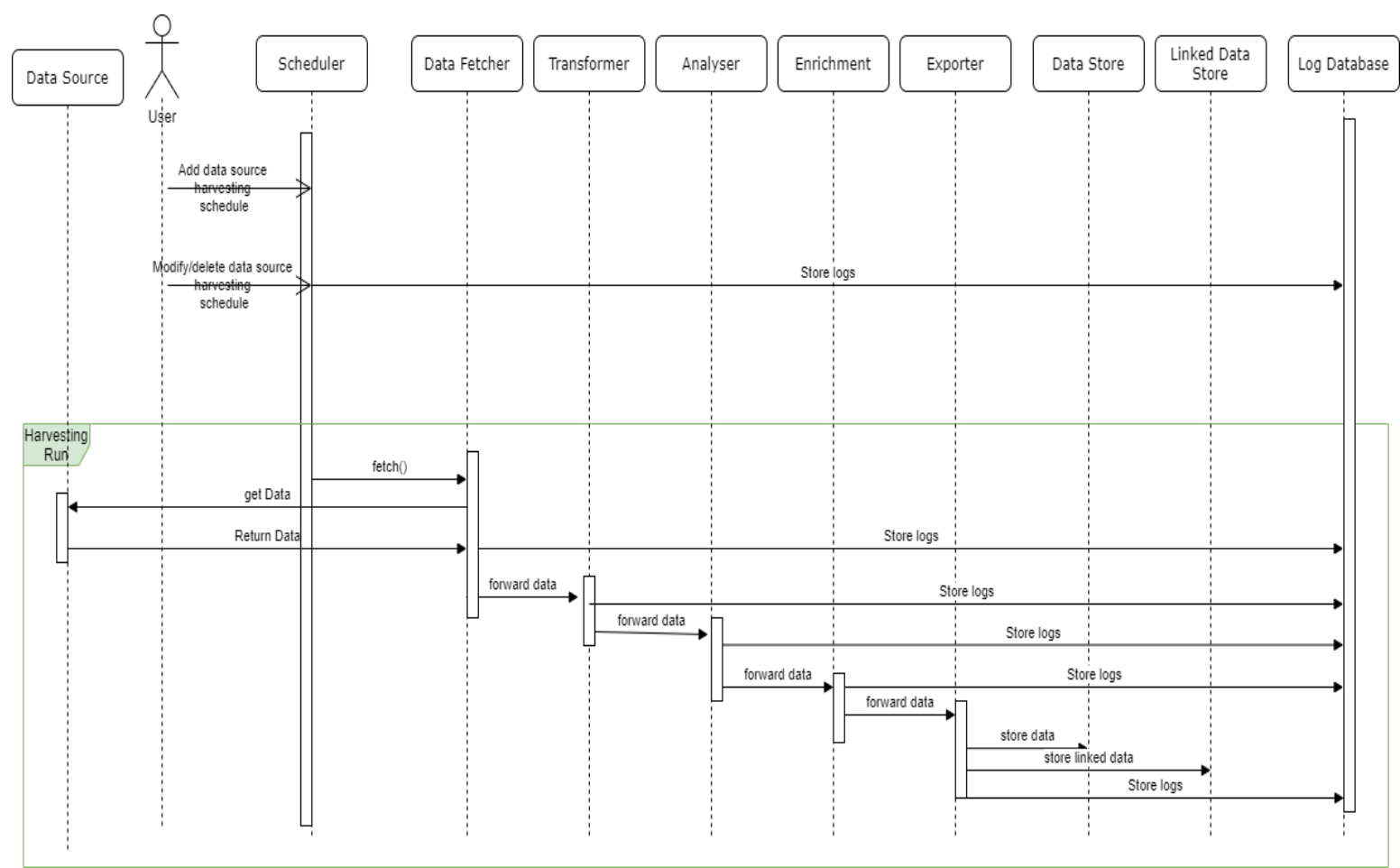


Figure 17: Data Fetcher & Transformer Sequence

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### 2.3.3 Private Wallet

#### 2.3.3.1 Status and integration

In version 1.0 along with compensation management within the backend wallet, more functionalities have been added, such as audibility and anti-fraud.

#### 2.3.3.2 Code Availability and installation instructions

The backend code is proprietary. Installation can be done with the downloadable artifacts stored in the repository <https://gitlab.com/datavaults/personalapp/wallet-app-backend>. The back-end services are dockerized for easy deployment. The frontend code is available as part of the Personal App Frontend (see section 2.3.1) in the repository <https://gitlab.com/datavaults/personal-app-frontend>.

#### 2.3.3.3 VM, IP and port of the component

The backend wallet is deployed at <https://wallet.dev3.ari-bip.eu/> and the merchant backend at <https://merchant.dev3.ari-bip.eu>.

#### 2.3.3.4 Interfaces & Interactions

The following figures illustrates the main basic flows of the wallet app, creation of tokens and purchase.

The creation of a token is performed when a compensation is received in the Private DLT. If the compensation has any kind of conditions for its use, the Wallet App request to the Trusted Authority to retrieve such conditions in the form of cryptographic proofs. Then the Wallet request to the Exchange Service to create a token base on constraints received from the Trusted Auditor. Finally, it stores a contract to keep register in of the operation performed.

The process of paying with a token is performed by means of a game of cryptographic operations over the contract of the operation. A merchant can verify part of this game with publics keys of the Wallet and Exchange server. The remainder part of the verification is carried out by the Exchange server. An invoice is returned to data provider if all the verification returns an OK response.

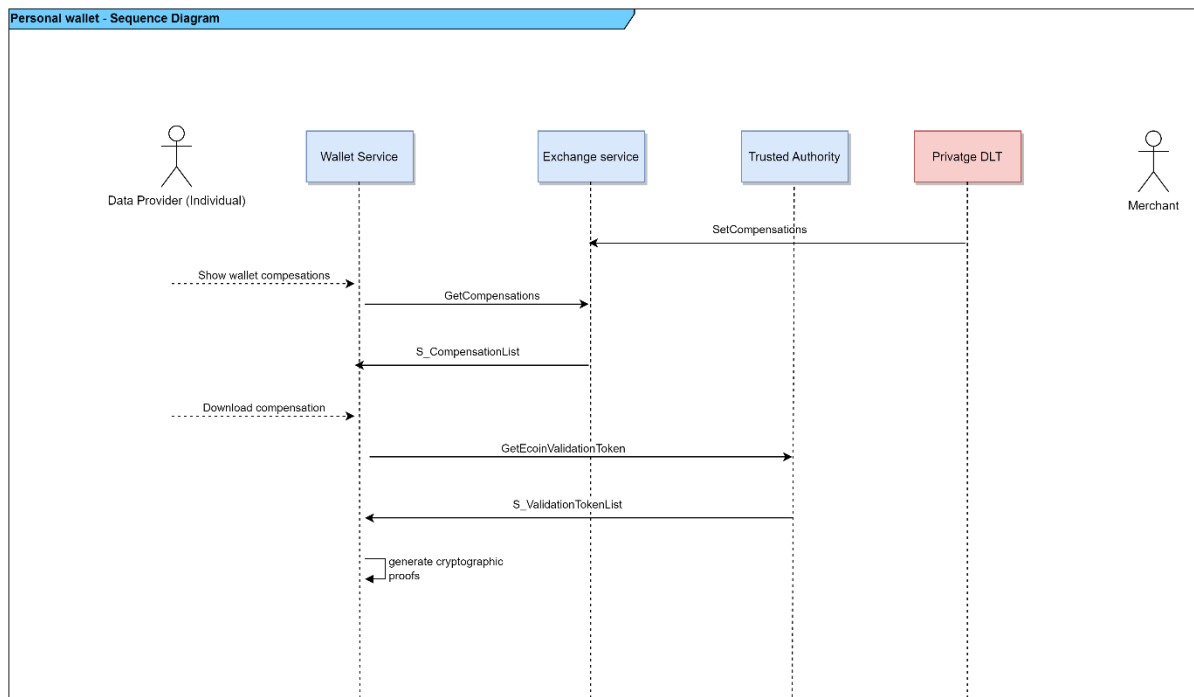


Figure 18: Personal wallet flow(compensation part)

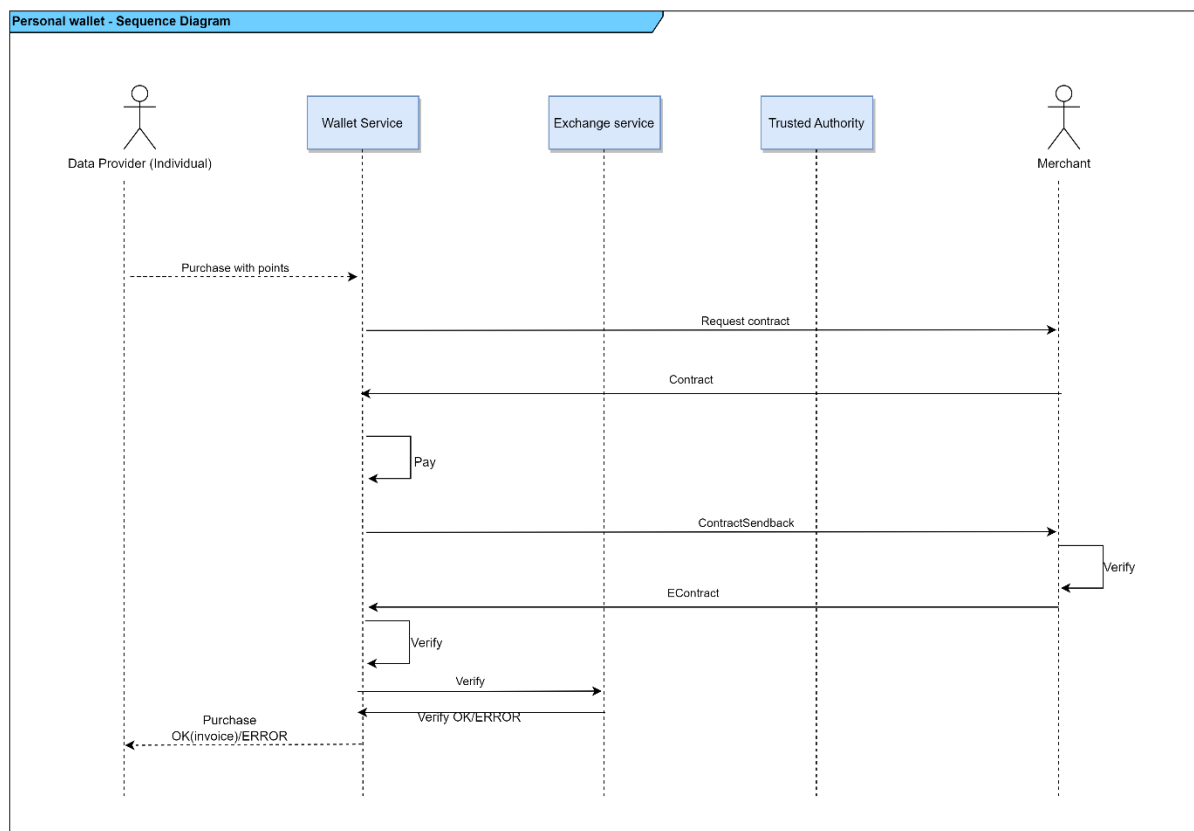


Figure 19: Personal wallet flow (merchant part)

## 2.3.4 Sharing Configurator

### 2.3.4.1 Status and integration

The Sharing Configurator component acts as the main component to be used by data owners to share their data, incorporating the functionalities offered by the Anonymizer, the Access Policy Editor and the Privacy Metrics Dashboard. In the beta version, there is full integration with the Anonymiser and the Access Policy Editor. In v0.50 the integration with the DAA Engine has been performed, while the updated modules for the Anonymiser and the Access Policy Engine have been integrated. Moreover, a new, easier to use sharing configuration dashboard has been developed, allowing users to choose configuration with max, medium, or low security and privacy guarantees, without going through the whole process of selecting the different options.

In the final release (v1.00) of the platform, the Sharing Configurator has been updated in order to accommodate the interfaces that allowed it to display the privacy risk exposure metrics, incorporated all the elements necessary for the support of the ABE engine, while various refinements have been done for supporting the updated operations of the Anonymiser and the Persona Builder components.

Also, as shown in Figure 42 of the Personal App screenshots below, a new sharing wizard has been developed which groups together certain options provided by the Sharing Configurator to allow users to take a shortcut when selecting data to be shared.

### 2.3.4.2 Code Availability and installation instructions

The code for the Sharing configurator has been integrated to the Personal App backbone.

### 2.3.4.3 VM, IP and port of the component

The Sharing Configurator is part of the Personal App deployed at <https://app.datavaults.eu/>

### 2.3.4.4 Interfaces & Interactions

The following diagrams display the workflow and interactions that take place between the internal Sharing Setup Manager subcomponents and the external components and actors.

The first diagram displays a characteristic usage scenario of the Sharing Setup Manager, when the Individual is creating a configuration. The main actor is the Individual who wants to create and configure a new sharing configuration in order to share a specific data asset. Initially the Individual enters the Sharing Configuration Interface either directly or is directed there after selecting to share a specific asset. The Individual can load an existing saved configuration or proceed with all fields blank. The Individual explores and configures the available sharing sections regarding the data asset itself, pseudonyms, visibility, access policies, encryption, attestation, licence, price, schedule. Once the Individual has completed all the fields, she finalises the configuration. The Sharing Configuration Engine takes the user input, composes the sharing configuration, saves it for future reuse, and triggers the Anonymisation Engine, to anonymise the data if it has been selected, and the Attestation component, if attestation has been enabled by the user. Then, the data asset with the accompanying preview, access policies, encryption etc. are sent to the DataVaults Cloud Platform. The configuration is stored in the Trusted DLT Engine and the data is stored in the Cloud platform.

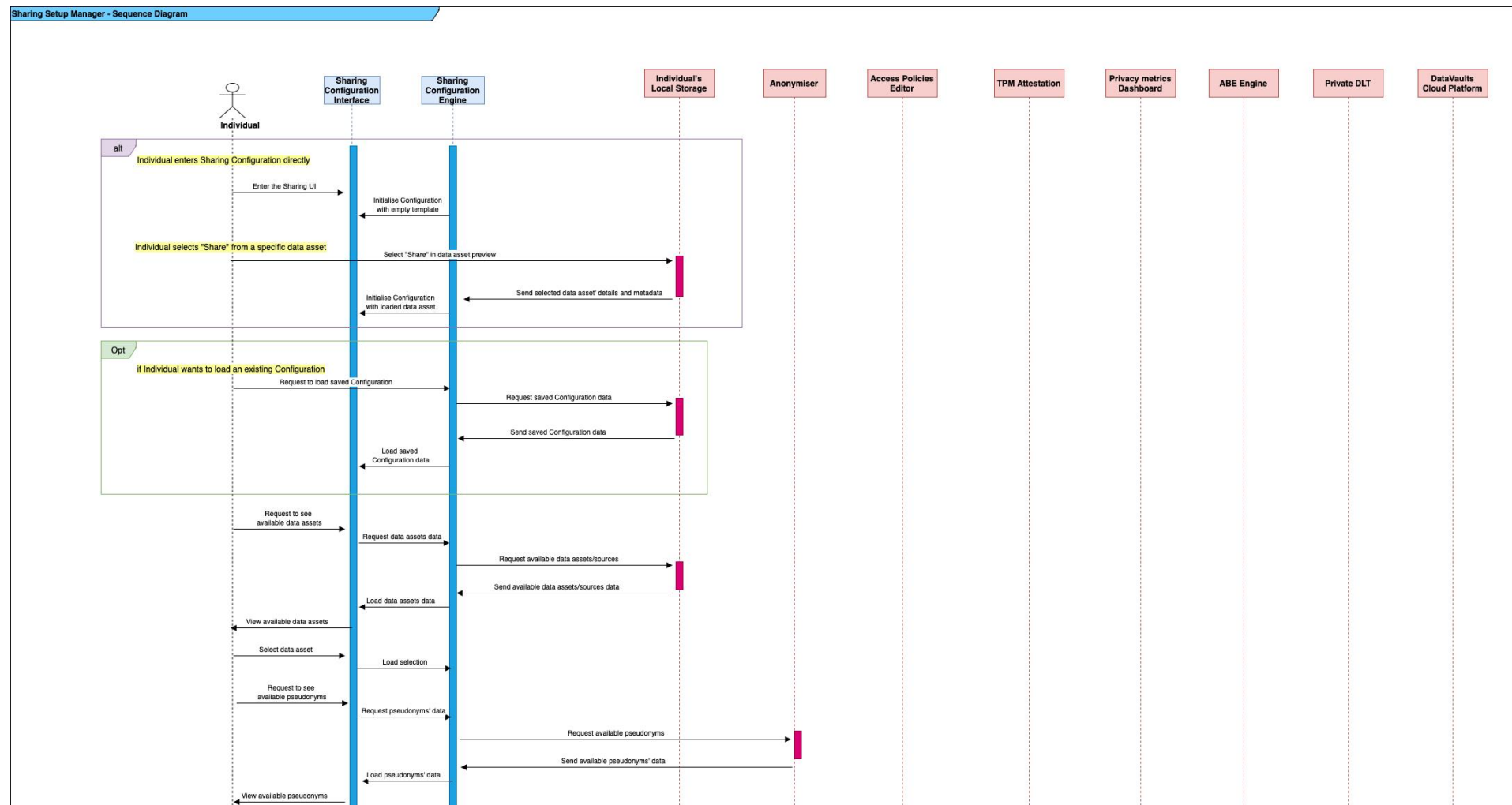


Figure 20: Sharing Configurator – Configuration by Individual (1/4)



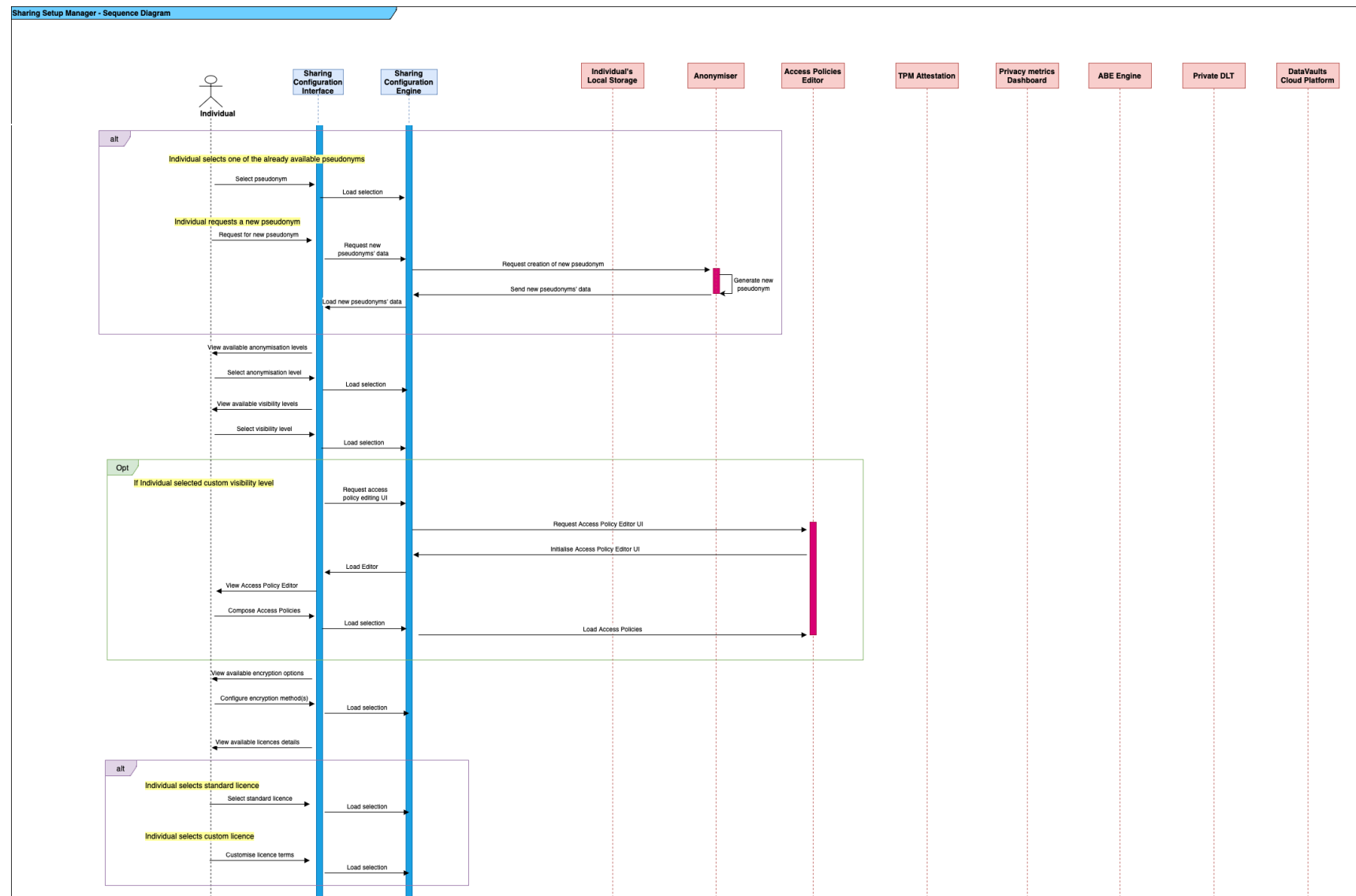


Figure 21: Sharing Configurator – Configuration by Individual (2/4)

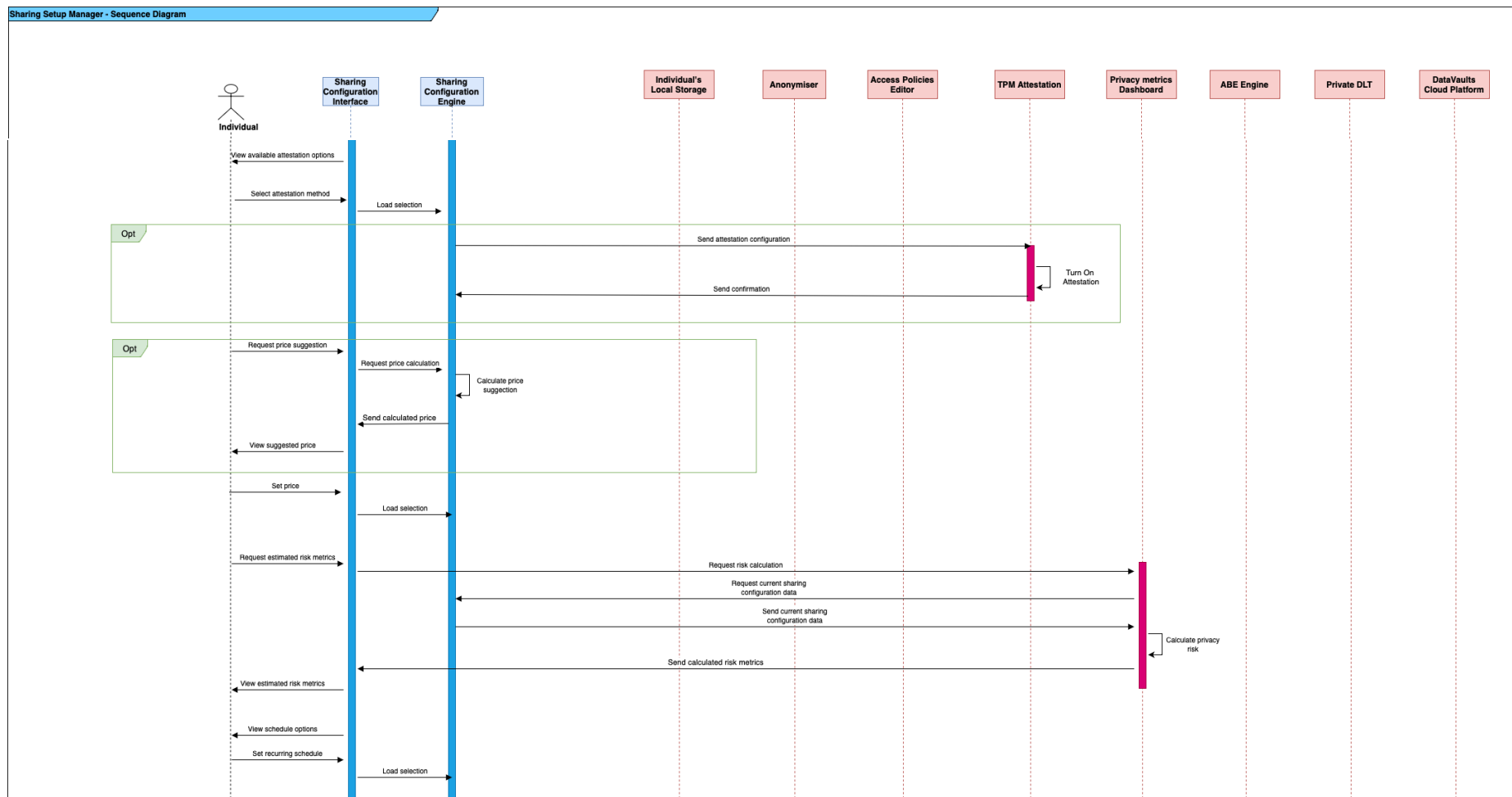


Figure 22: Sharing Configurator – Configuration by Individual (3/4)

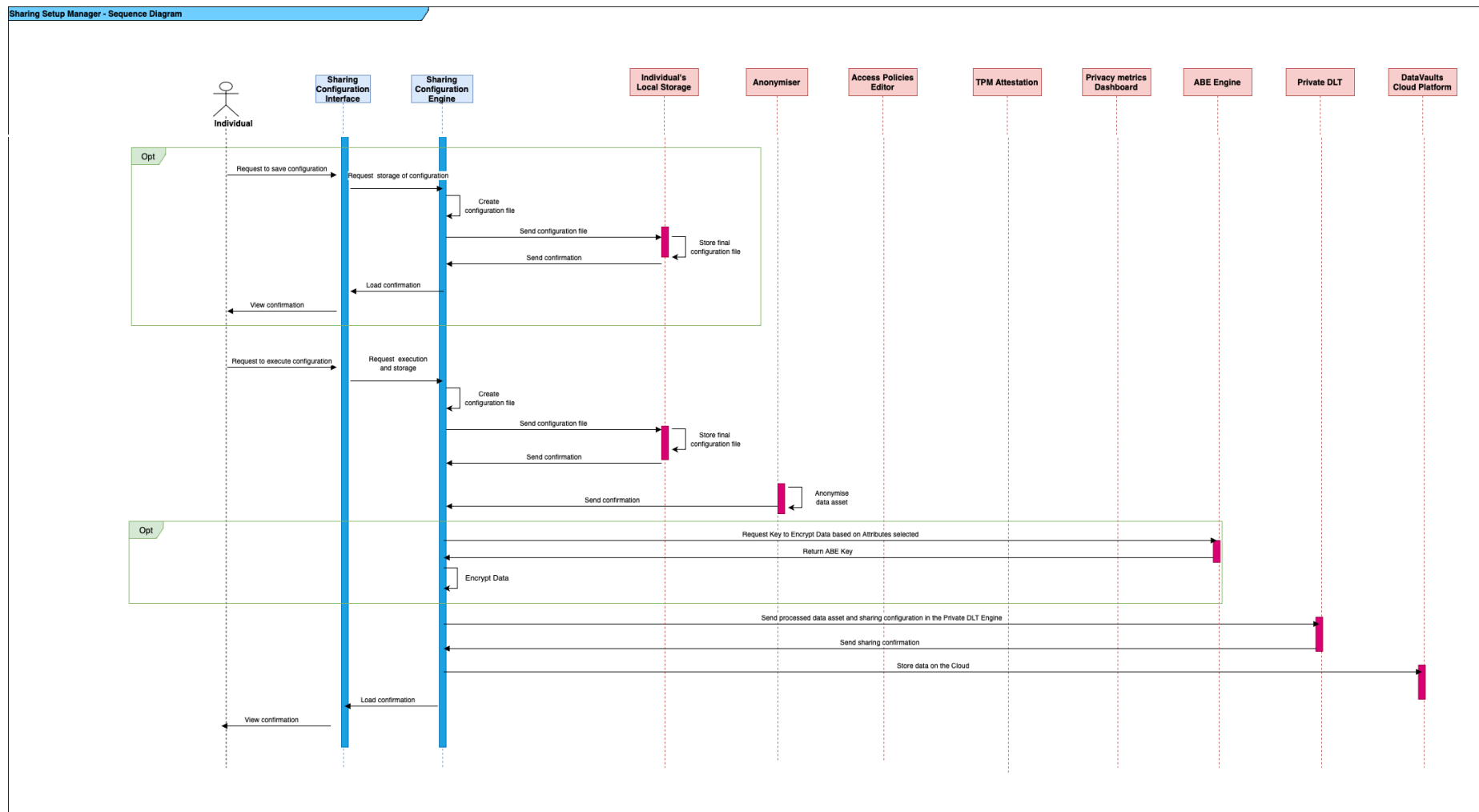


Figure 23: Sharing Configurator – Configuration by Individual (4/4)

## 2.3.5 Privacy Metrics Dashboard

### 2.3.5.1 Status and integration

The Privacy Metrics Dashboard provides the user the calculated risk regarding a dataset that is about to be shared. It also offers the system admin a comprehensive view of current and previous privacy exposure degrees, based on the datasets that have already been shared and are part of the DataVaults platform. The view of the calculated risk for a dataset that is about to be shared has been integrated with the Personal App in order to appear in the preview of the dataset sharing procedure.

### 2.3.5.2 Code Availability and installation instructions

The code for the Privacy Metrics Dashboard is available at <https://gitlab.ubitech.eu/cs3/rnd/h2020-datavaults-rnd/risk-management>, along with a comprehensive README file. Installation instructions are included therein, and the components have already been dockerized in order to further facilitate an easier installation process.

### 2.3.5.3 VM, IP and port of the component

The Privacy Metrics Dashboard is deployed on the Risk VM and can be accessed at <https://datavault-risk.euprojects.net>.

### 2.3.5.4 Interfaces & Interactions

Figure 24 presents a flow diagram of the operation of the Privacy Metrics Dashboard, and how it retrieves the privacy metrics for the user.

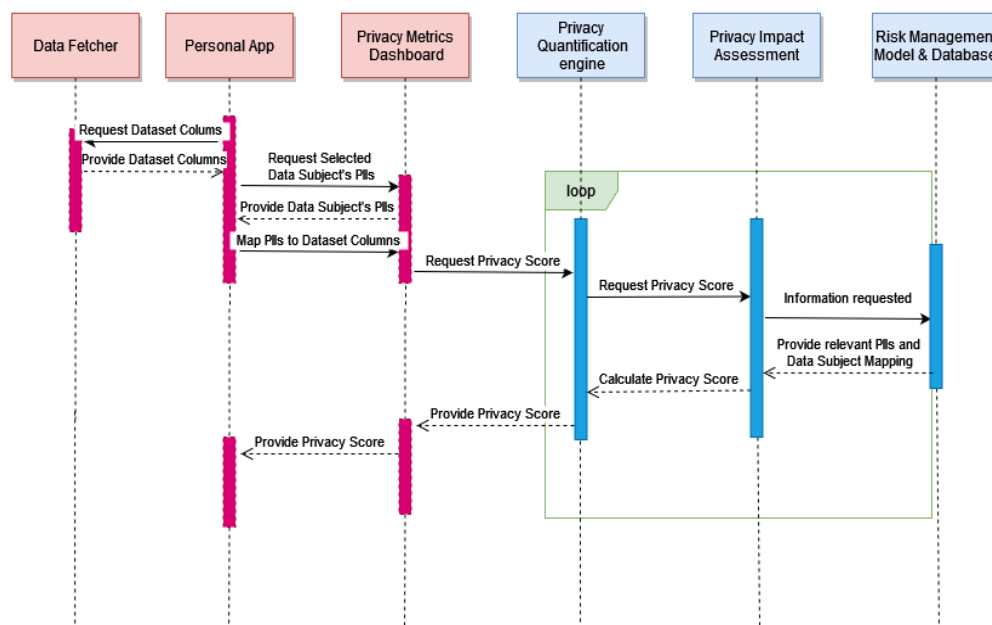


Figure 24: Risk Monitoring Calculation Sequence Diagram

## 2.3.6 Anonymiser

### 2.3.6.1 Status and integration

Version 1.0 of the Anonymiser has been fully integrated into the Personal DataVaults App. Version 2.0 is complete and incorporates the additional functionality to support Location Privacy (specifically for Latitude and Longitude Geo-Codes). Version 2.0 has not been integrated with the Personal DataVaults App

### 2.3.6.2 Code Availability and installation instructions

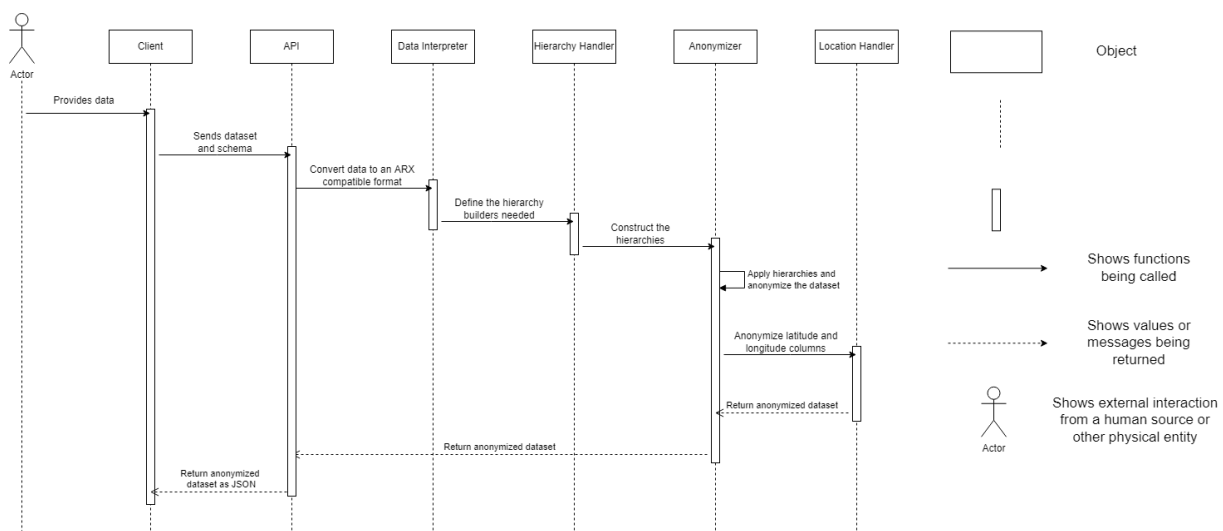
Version 1.0 and Version 2.0 are available in Gitlab (<https://gitlab.com/datavaults/personalapp/anonymiser>). To install Version 2.0 there are two Docker Containers containing an API each and it can be set up using docker compose. To run the anonymizer API application, run “docker-compose up” in the anonymizer-api-v001 directory. If the ports need to be changed for the anonymizer and location handler APIs you can change them in their respective repository. If the location-handler port is changed, the code that references the location-handler endpoint will need to be changed. To do this go to “AnonHandling.java” and change the 5000 in the line --> URL url = new URL("http://locationapi:5000/dataset/handle\_location"); under the anonymizeLocation function to reflect the updated location-handler port.

### 2.3.6.3 VM, IP and port of the component

Currently the two services run on Port 8080 and Port 5000 respectively. These may need to be changed in the docker files dependent on the integration and use of ports by other components. If Port 5000 is changed there will need to a minor change made to the anonymizer where it references the location service – it will have to be updated to reference the new Port address so that the correct API calls continue.

### 2.3.6.4 Interfaces & Interactions

The following figure presents a flow diagram of the operation of the Anonymiser.



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### 2.3.7 Access Policy Editor

#### 2.3.7.1 Status and integration

The Access Policy Editor (APEd) is a step within the sharing configurator of the Personal DataVaults App. The Editor allows the Data Owners to select the valid attributes under which sharing their data. The list of values set as “allowed” for every attribute is stored as part of the Data Sharing Configuration in the blockchain. Moreover, the APed manages the templates system for saving and manage local policies to be reused, and the “Export” button to present the policy in an IDS or ODRL similar format.

#### 2.3.7.2 Code Availability and installation instructions

The code is available as part of the Personal App in its gitlab (mostly <https://gitlab.com/datavaults/personal-app-frontend.git>) and the instructions for the installation are described in the corresponding README files of each gitlab project.

#### 2.3.7.3 VM, IP and port of the component

Its implementation is part of the Sharing Configuration component, and it cannot be used in an isolated manner.

#### 2.3.7.4 Interfaces & Interactions

The following diagram depicts the workflow supported by the Editor. The main actor is the Individual, using the Editor as part of its personal tools allowing him or her to control the conditions for sharing their data. These conditions are becoming formal policies and are going to be used by the Access Policy Engine when the Data Seekers request information.

The Editor will be called by the Sharing Configurator when the Individual selects it, passing the dataset for which the Individual wants to create policies. The Storage component receives the request and sends the policies associated to the data, displaying them as a list for selecting one of them. The Individual selects the action relating to a policy, choosing a template to modify it or use it as it is, or creating a new one. Once the policy is ready a request for saving it is sent to the Storage component. Moreover the policy can be saved as a new template or as an update of the previously selected.

Once the policy is completed, the data owner can pre-format it in a IDS policy, in order to obtain a policy ready to be used in other systems following the IDS standards.

The Individual exits the Access Policy Editor, and the control returns to the Sharing Configurator.

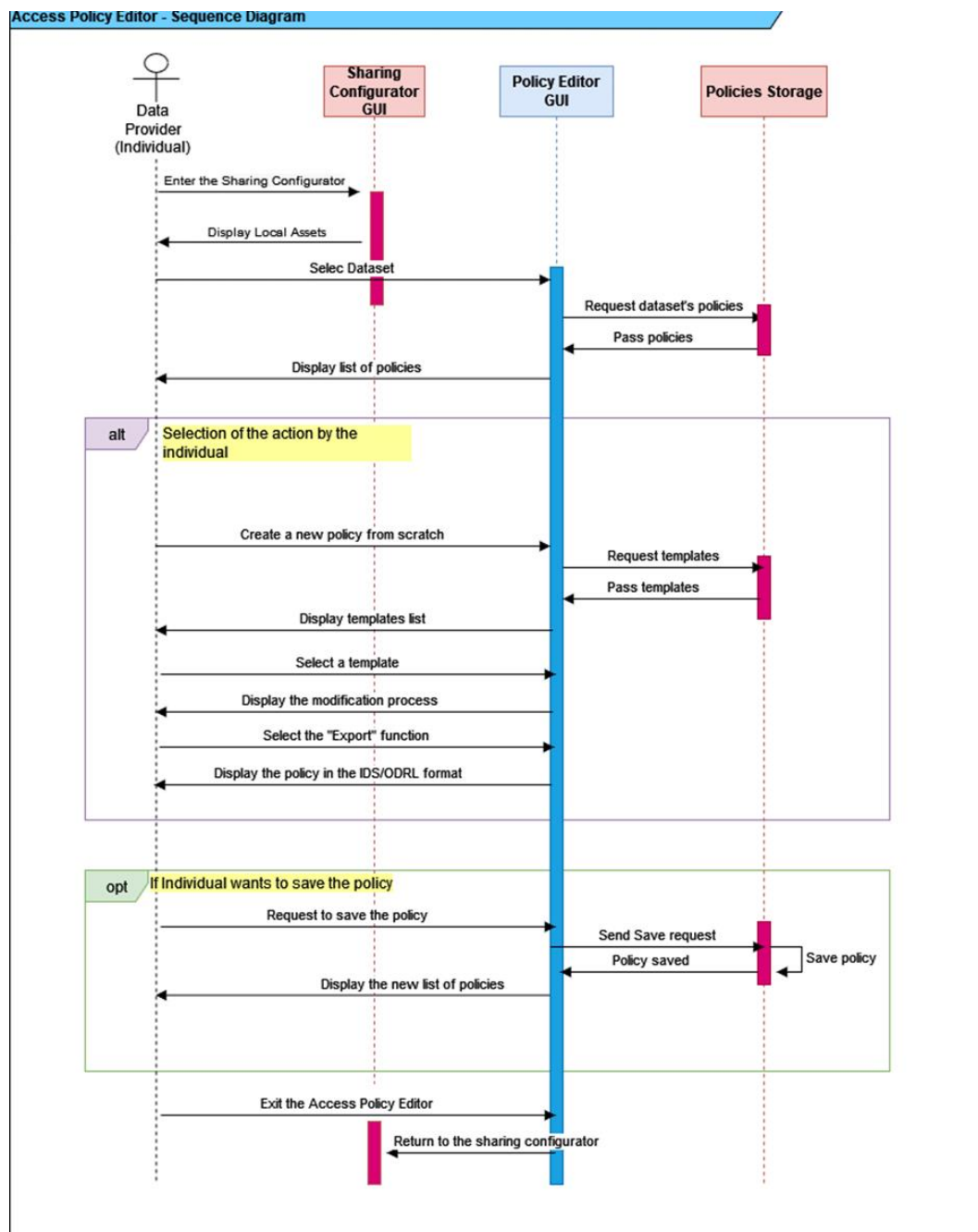


Figure 26: Access Policy Editor Sequence Diagram

## 2.3.8 Transactions Analytics

### 2.3.8.1 Status and integration

The Transactions Analytics component (formerly titled as Edge Analytics Engine) is a component that is used to deliver pre-defined statistics relevant to the data retrieval, sharing and transactions operations to data owners. These features have been considered as of highest importance by the demonstrators compared to the initially envisaged analytics to run on the connected data sources, as the heterogeneity of data sources and the effort required by ordinary users to run different analytics has been considered too high. This component has been delivered in the v0.50 version of the Personal App and has been improved in terms of

visuals in the v1.00, while specific snippets of it have been used to display information in the landing page of the Personal App.

### 2.3.8.2 Code Availability and installation instructions

The code for the Transactions Analytics component has been integrated to the Personal App backbone.

### 2.3.8.3 VM, IP and port of the component

The Transactions Analytics is part of the Personal App deployed at <https://app.datavaults.eu/>

### 2.3.8.4 Interfaces & Interactions

The following figure presents a flow diagram of the operation of the Transaction Analytics Component showcasing the workflow and interactions that happen between the internal sub-component as well as external entities. The main actor is the Data Provider (Individual) who is presented with analytics regarding his/her transactions and actions that have been executed over the platform and concern his/her account.

Once triggered, the component initiates data collection from the data store of the individuals, the logs of the user as stored in the Personal App, as well as the transactions concerning the assets the individual has registered to the private DLT. All this information is then passed on to an analytics component, which performs basic operation over the data, and forwards the results to the visualizer that presents to the user a set of pre-defined visualisations.

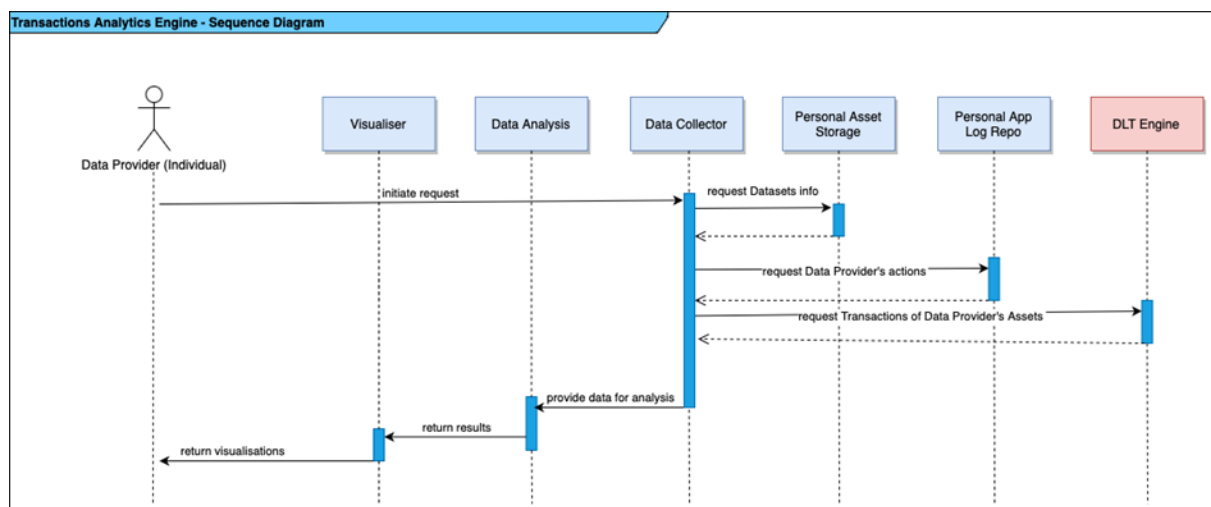


Figure 27: Transaction Analytics Sequence Diagram

## 2.3.9 Data Request Service Resolver

### 2.3.9.1 Status and integration

The Data Request Service Resolver is tasked to capture the requests coming from data seekers and let data owners decide how they handle those. Communication with the relevant component of the cloud platform is done via RabbitMQ, and the full version of this component has been delivered in the beta release and is since updated as needed.



### 2.3.9.2 Code Availability and installation instructions

The code for the Data Request Service Resolver has been integrated to the Personal App backbone

### 2.3.9.3 VM, IP and port of the component

The Data Request Service Resolver is part of the Personal App deployed at <https://app.datavaults.eu/>

### 2.3.9.4 Interfaces & Interactions

The following figure presents a sequence diagram of the operation of Data Request Service Resolver, showcasing the workflow and interactions that happen between the internal sub-components as well as other DataVaults external components, the “Datastream and Contract Composer” and the “Sharing Configurator”. The main actor is the Individual who is asked to accept or reject the sharing terms coming from the Data Seeker’s proposed contract.

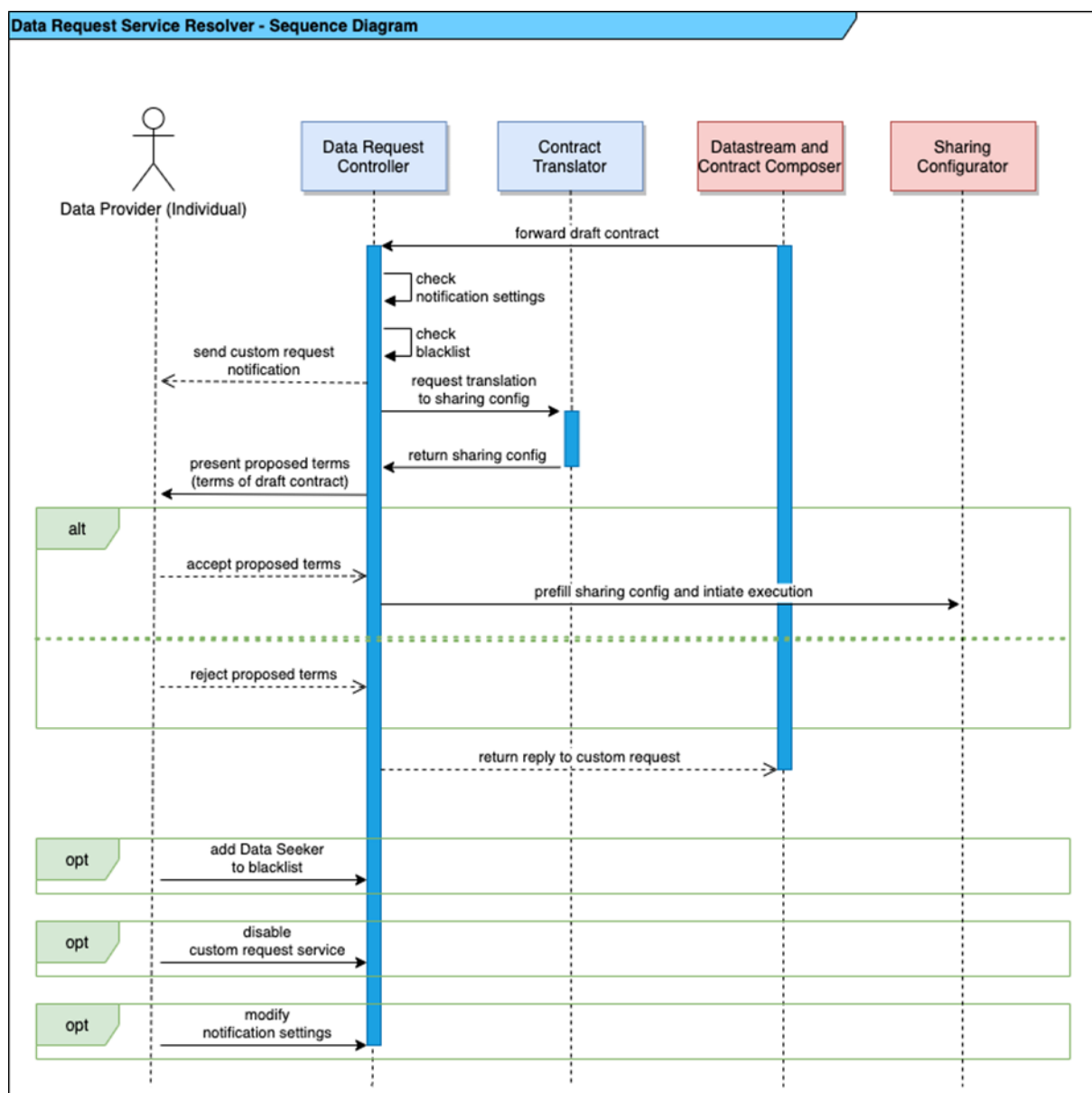


Figure 28: Data Request Service Resolver Sequence Diagram

## 2.3.10 Trusted Platform Module

### 2.3.10.1 Status and integration

The Trusted Platform Module (TPM) relies on two software components for the integration into the Personal App: The user interface of the Sharing Configurator module is extended to provide all functionalities in a seamless manner. Additionally, a locally installed software is responsible for interacting with the low-level hardware of the user device and implements Direct Anonymous Attestation (DAA). This, so called TPM Bridge, opens a local web socket to receive requests from the Personal App frontend and call the corresponding functions of the DAA library.

### 2.3.10.2 Code Availability and installation instructions

The user interface is developed as part of the Personal App Frontend. The TPM Bridge and DAA implementation are located in a dedicated repository of the project's GitLab server: <https://gitlab.com/datavaults/personalapp/trusted-platform-module>

Installation instructions for developers are provided in the Readme file, a pre-compiled package is created for easy installation by end users.

### 2.3.10.3 Interfaces & Interactions

The following sequence diagrams show the interaction of the Personal App with the locally installed TPM Bridge.

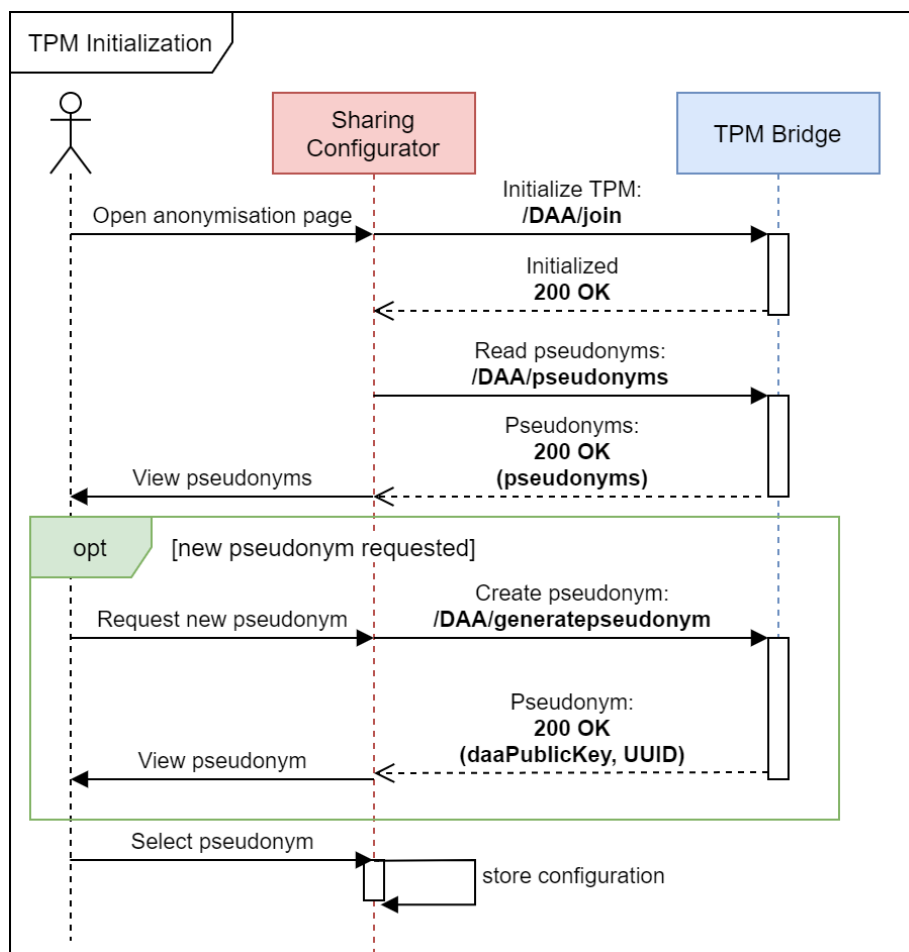


Figure 29: Initialization of Trusted Platform Module

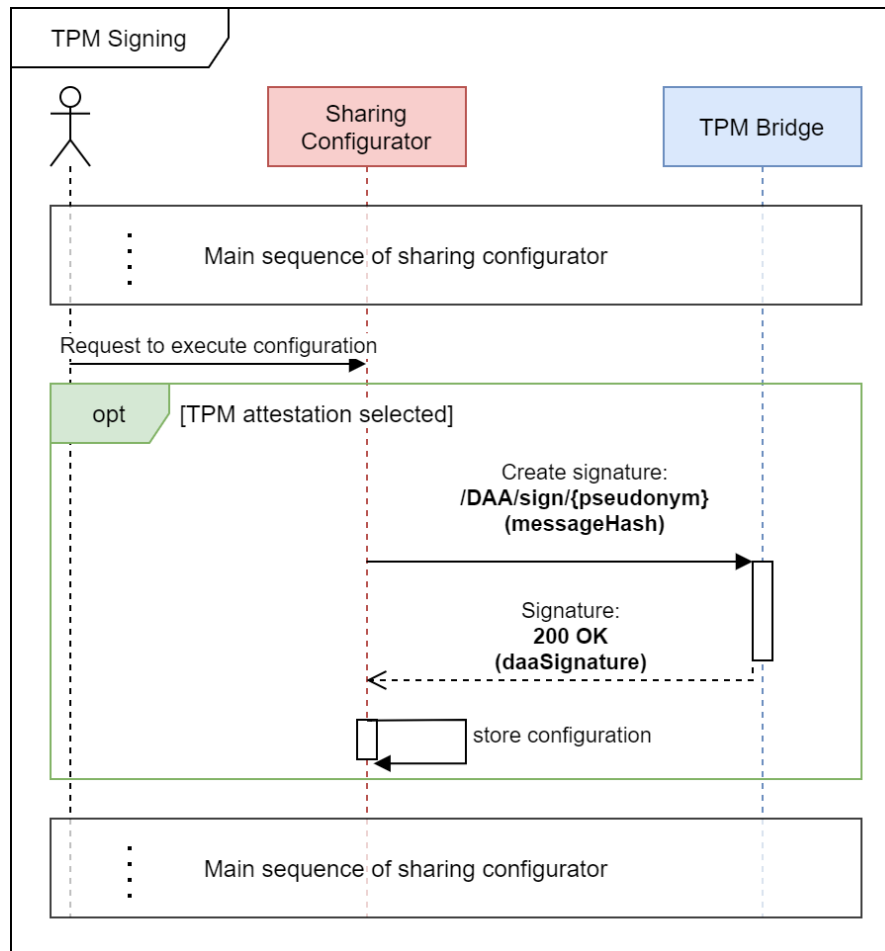


Figure 30: DAA signing of sharing configurations

### 2.3.11 DataVaults Mobile App

#### 2.3.11.1 Status and integration

The DataVaults Mobile App is to be used as an auxiliary data source for capturing and uploading to the DataVaults Personal App activity data as well as location data of individuals. Moreover, the Mobile App is capable of pushing notifications to the users. The mobile app has been developed and released as a prototype in v0.50 of the platform.

In the final release of the platform (v1.00) the Mobile App has been updated including the ability to record health data (as coming from Google Fit), as well as position and route data, and these are delivered to the Personal App as different datasets, based on the user's preference. Also in this version, the necessary terms and conditions that need to accompany the Mobile App to allow it to be displayed in the Google Play Store have been devised and successfully submitted for review, allowing the DataVaults Mobile App to exit the demo phase and be directly downloadable from the official Google Play Store.

#### 2.3.11.2 Code Availability and installation instructions

The code for the DataVaults Mobile App is proprietary. Installation is performed directly from the Google Play Store by downloading the application directly.

### 2.3.11.3 Interfaces & Interactions

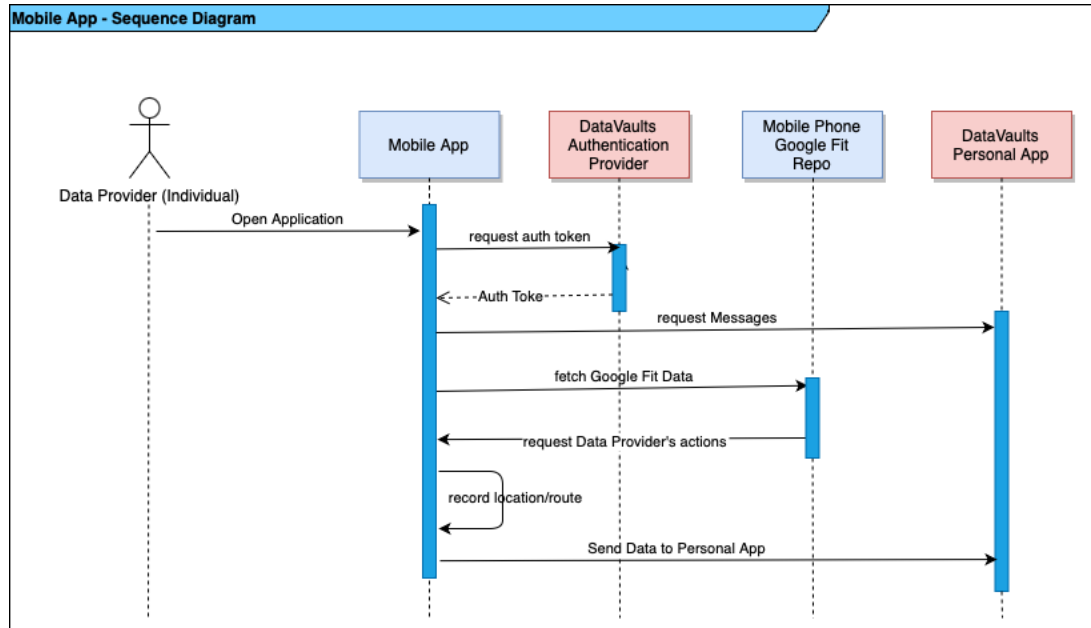


Figure 31: Mobile App Interactions and Connection to the DataVaults Personal App

## 2.4 INTEGRATED PLATFORM STATUS

In Version 1.0 of the platform, we further improved the functionality and performance of the platform services finalized the development and enrichment of the platform UI. Regarding the deployment, 15 VMs have been used for this version of the platform; 1 for the identity manager, 1 for the Cloud Platform backbone, 1 for the Message Queue, 1 for the Risk Dashboard, 1 for the Triple Store of the Query Builder, 1 for the Data Fetcher, 1 for the components of the Personal App, and 8 VMs for the Blockchain Network. Some of them could have been deployed in the same VM but it was decided to have them as decoupled as possible to reduce the maintenance downtime of the platform and improve the overall performance.

In deliverable D1.3 [6] we presented the workflows that the core offerings of the DataVaults and also the corresponding parts of the DataVaults Lifecycle.

- **DataVaults Data Management Lifecycle:** This part of the Lifecycle concerns all data management-related tasks, spanning from data collection, data cleansing and semantic enrichment, storage and sharing, up to data deletion and access revocation.
- **DataVaults Data Analytics Lifecycle:** It contains the steps required for the exploration of data assets and the application of data analytics and visualisation techniques in order to extract meaningful insights.
- **DataVaults Compensation Lifecycle:** This part of the Lifecycle evolves around the creation and management of contracts for the sharing of data and the appropriate compensation of Individuals.

In more details, in the *Personal App* part, the Data Fetcher component has been extended to support more data sources to *retrieve data*, while the data schema was improved to facilitate the needs of the Personal Builder. The data that is returned to the Personal App (Personal App VM, <https://app.datavaults.eu>) and allows the user to start the *sharing process*. This is done

by firstly connecting with the Sharing Configurator component, in order to enable the user to configure various sharing aspects for their datasets, such as the Access Policy that will be applied to the dataset. The sharing configurator returns to the Personal App the generated sharing configurator and the user has the option to *anonymize the dataset*. If this option is chosen, the dataset along with the sharing configuration are sent to the Anonymizer component (Personal App VM, <https://anonymizer.datavaults.eu>). Based on the size of the dataset, the correct algorithm is chosen, and the data are anonymized so that they are still usable but maintain the privacy of the user.

Finally, the anonymized dataset, along with the sharing configuration and relevant metadata are sent to the *Cloud Platform* (Cloud VM, <https://platform.datavaults.eu>) using the corresponding API, along with a valid Keycloak (<https://datavaults-auth.euprojects.net>) token of the logged in user.

The Cloud Platform receives the dataset and stores it in the database, along with information about the dataset id and owner. The Platform contacts the DataStream & Contract Composer component which in turn calls the Trusted DLT Engine (<https://dlt.datavaults.eu>) in order to create a contract representing the sharing of the dataset. Simultaneously, the Query Builder (Cloud VM, <https://triple-store.datavaults.eu>) component is called to also store the new dataset inside the profile of the data owner.

When a Data Seeker wishes to use the Cloud Platform to *search for datasets* that are available for him/her, the Cloud Platform contacts the Query Builder component to get a list of the available datasets. In turn, the Query builder calls the Access Policy Engine component in order to determine which datasets should be *accessible to the current user*, based on his/her attributes and the implemented Policy. The Access Policy Engine ([pe.datavaults.eu](https://pe.datavaults.eu)) returns a list of the available datasets, if any exist, and those are presented to the Data Seeker. If the Data Seeker wishes to purchase one of the available datasets, the relevant contract is created via the DataStream & Contract Composer component and the dataset is available for download on the Data Seeker's Vault page. Finally, the Personal App is notified about the success of the transaction via the Messaging queue (212.101.173.179) connected to it and the Cloud Platform.

The Data Seeker can also create and manage Personas in order to find grouped sets of datasets that match a set of criteria. The Cloud Platform provides the tools to create and manage those Personas and also handles the task of searching, filtering, displaying and potentially buying all the datasets that match a persona and should be able to be viewable by the particular Data Seeker.

Datasets that are encrypted by the Data Owners are also encrypted when they are sent to the Cloud Platform with Attribute Based Encryption. The Cloud Platform handles the task of generating each Data Seeker's ABE key and trying to decrypt encrypted dataset, while preventing Data Seekers from buying datasets that they could not access.

The Data Seekers can also contact the Secure Analytics Playground Component, via the Cloud Platform, in order to be able to run analytics or algorithms over the datasets and questionnaire answers they have received access too. The Secure Analytics Playground shares the same user

database with the cloud platform, so Dataseekers can use the same credentials to access both components.

---

#### 2.4.1 DataVaults Methodology Phases as Part of Version 1.0

The high-level integrations that may occur between the DataVaults Actors and the DataVaults Platform were also defined in D1.3 [6]. These integrations express the eight Phases of the Methodology, and in this section, we provide a high-level presentation regarding how these Phases are covered in Version 1.0 of DataVaults Platform.

The implementation and integration status for the actions that support the DataVaults Data Lifecycle are presented in the figure below using the following color coding: Blue means actions already integrated as part of a single workflow, Green means actions implemented but not integrated in the main platform workflow, Orange mean actions are not yet ready.

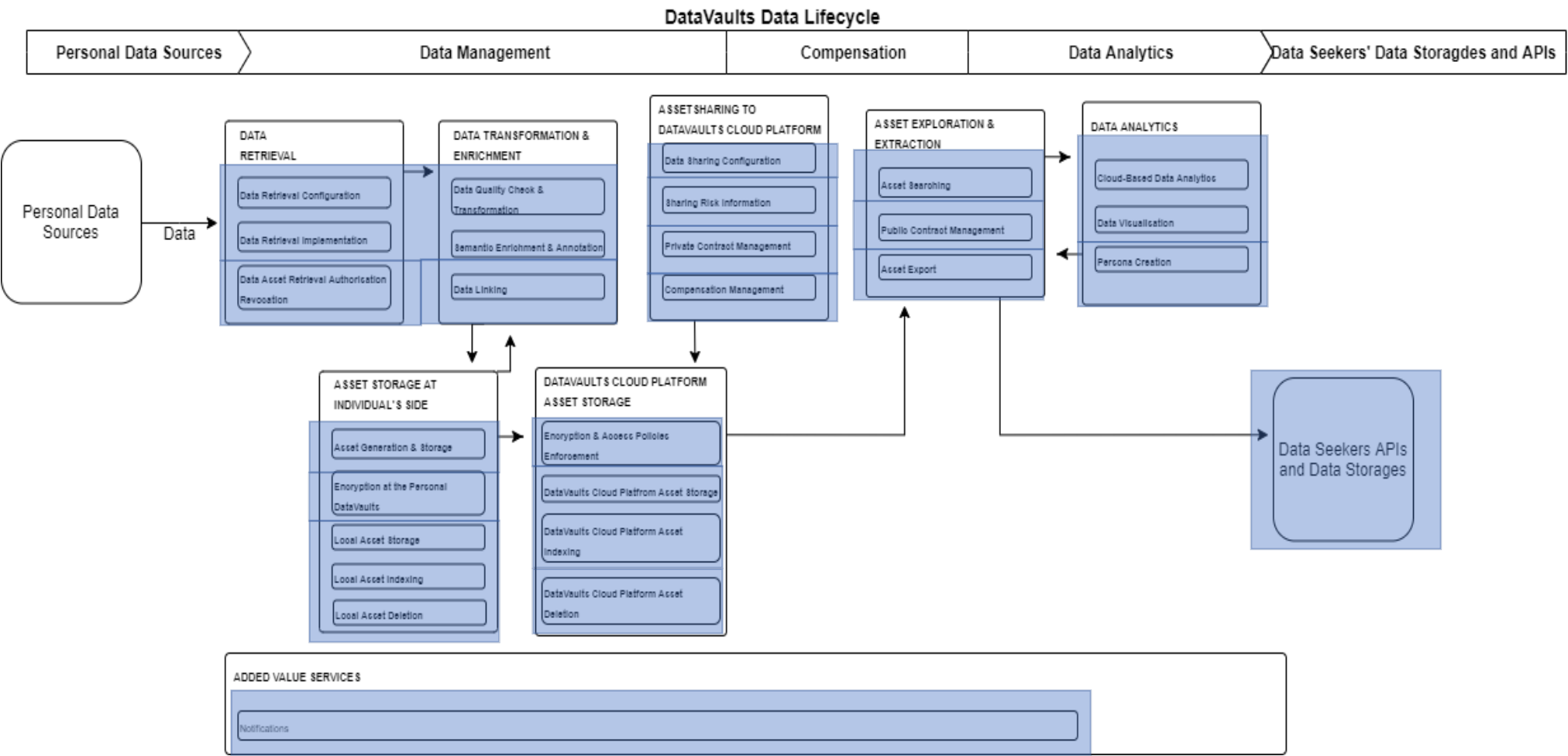


Figure 32: DataVaults Lifecycle as part of the 0.5 version

For easier readability of the document, we provide the description of the phases, as defined in D1.3 [6].

- i. **Data Retrieval** – refers to the configuration, implementation, and management of the DataVaults connection to the various data sources, as defined by the Individuals, in order to collect their personal data.
- ii. **Data Transformation & Enrichment** - ensures the high quality of the collected data, through automated quality checks and transformation operations. Furthermore, data schema mapping, semantic enrichment and linking processes are foreseen for the maximisation of discoverability and usability of these data.
- iii. **Asset Storage at Individual's Side** – is responsible for the persistence of the personal data assets at the DataVaults Personal App of the Individuals in a secure way. These assets include the processed and semantically enriched data collected from the connected data sources, their metadata, and any data assets generated from the application of data analytics by the individual.
- iv. **Asset Sharing to DataVaults Cloud Platform** – entails all aspects around the sharing of an Individual's data asset to the DataVaults Cloud Platform. These processes span from the configuration of the various sharing aspects and the creation and management of the corresponding contracts between the Individuals and the Platform, to the continuous update of the Individual's sharing risk information and the activation of the compensation mechanism whenever a data asset is acquired by a Data Seeker.
- v. **DataVaults Cloud Platform Asset Storage** – pertains to the actual upload and secure storage of a data asset from the Individual's side to the Cloud Platform, under the terms set during the sharing configuration. Furthermore, this Phase handles a requested deletion of the data asset from the Cloud.
- vi. **Asset Exploration & Extraction** – enables the Data Seekers search and acquire data assets that match their needs.
- vii. **Data Analytics** – provides cloud-based data analytics and visualisation tools that will shed light on underlying connections and facilitate Data Seekers into getting a better understanding.
- viii. **Added Value Services** –includes horizontal DataVaults services that facilitate other core processes.

---

#### 2.4.2 DataVaults Platform Interfaces

After collecting the interaction points between the platform components in D5.2 [2] a set of initial interfaces and APIs were developed and documented in D5.3 [3]. The documentation of those APIs and all the changes that were required as the architecture and integration evolved can be found in the project's Gitlab repository<sup>2</sup>. All API specifications are provided in the OpenAPI V3.0 (OAS)<sup>3</sup> format to ensure homogeneity across all components and enable effortless viewing and testing of the endpoints via the many OAS visualization tools available (Swagger Editor, ReDoc, etc).

---

<sup>2</sup> <https://gitlab.com/datavaults>

<sup>3</sup> <https://swagger.io/specification>



### 3 DATAVAULTS PLATFORM USAGE & INSTALLATION

Both the DataVaults Cloud Platform and the DataVaults Personal App have advanced in the 1.0 version of DataVaults, that supports all phases of the DataVaults Lifecycle.

#### 3.1 PLATFORM USAGE

Here we present most interactions that are currently supported through the UI of the Personal App, the Cloud Platform, and the Secure Analytics Playground.

From Figure 33 Figure 37 the view for the unregistered user is provided.

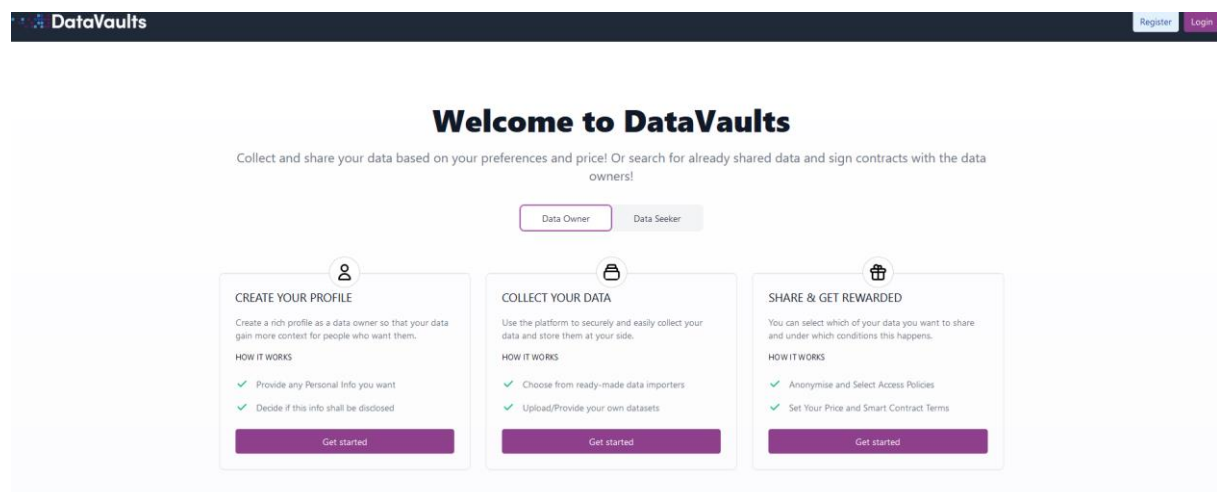


Figure 33: Data Owner Landing Page

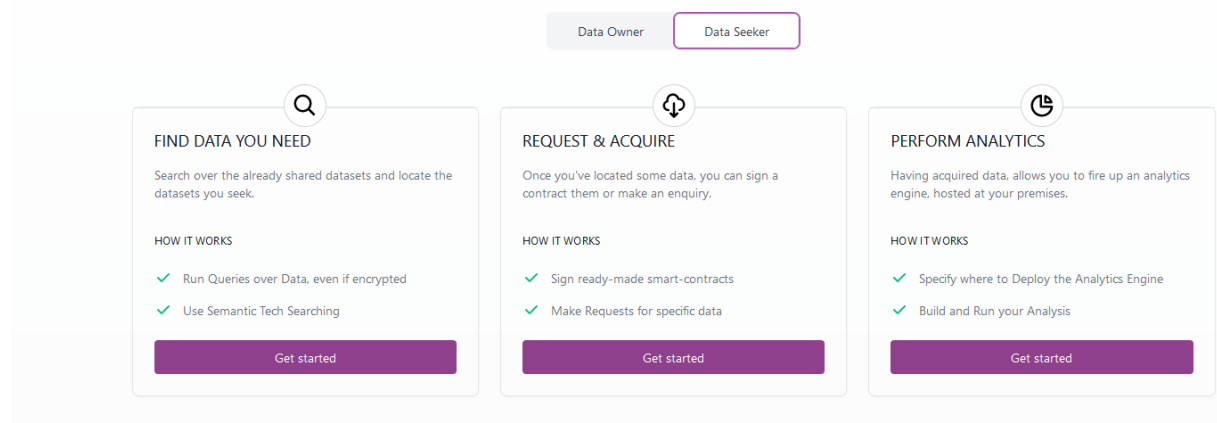


Figure 34: Data Seeker Landing Page

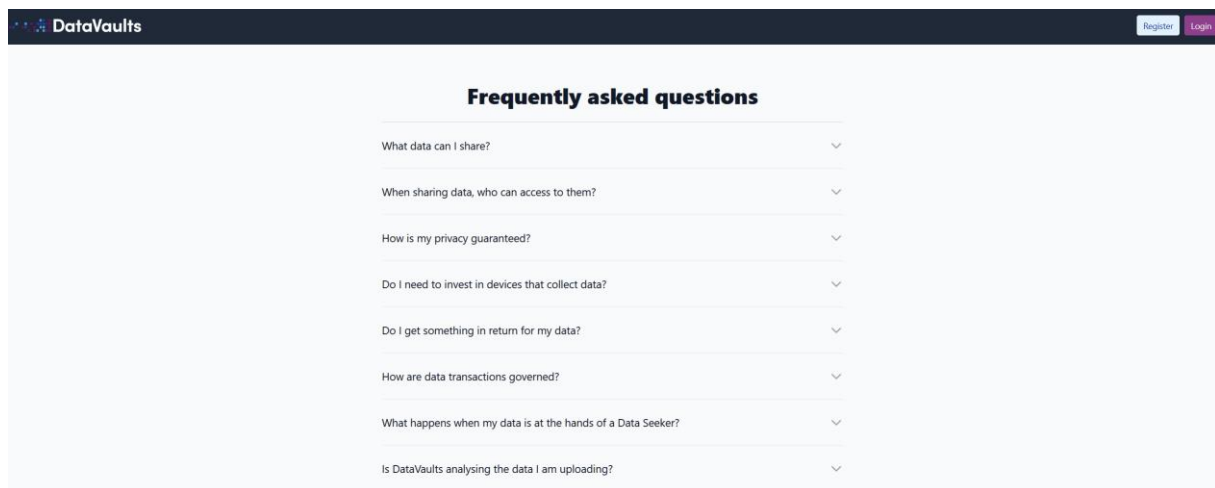


Figure 35: Frequently asked questions

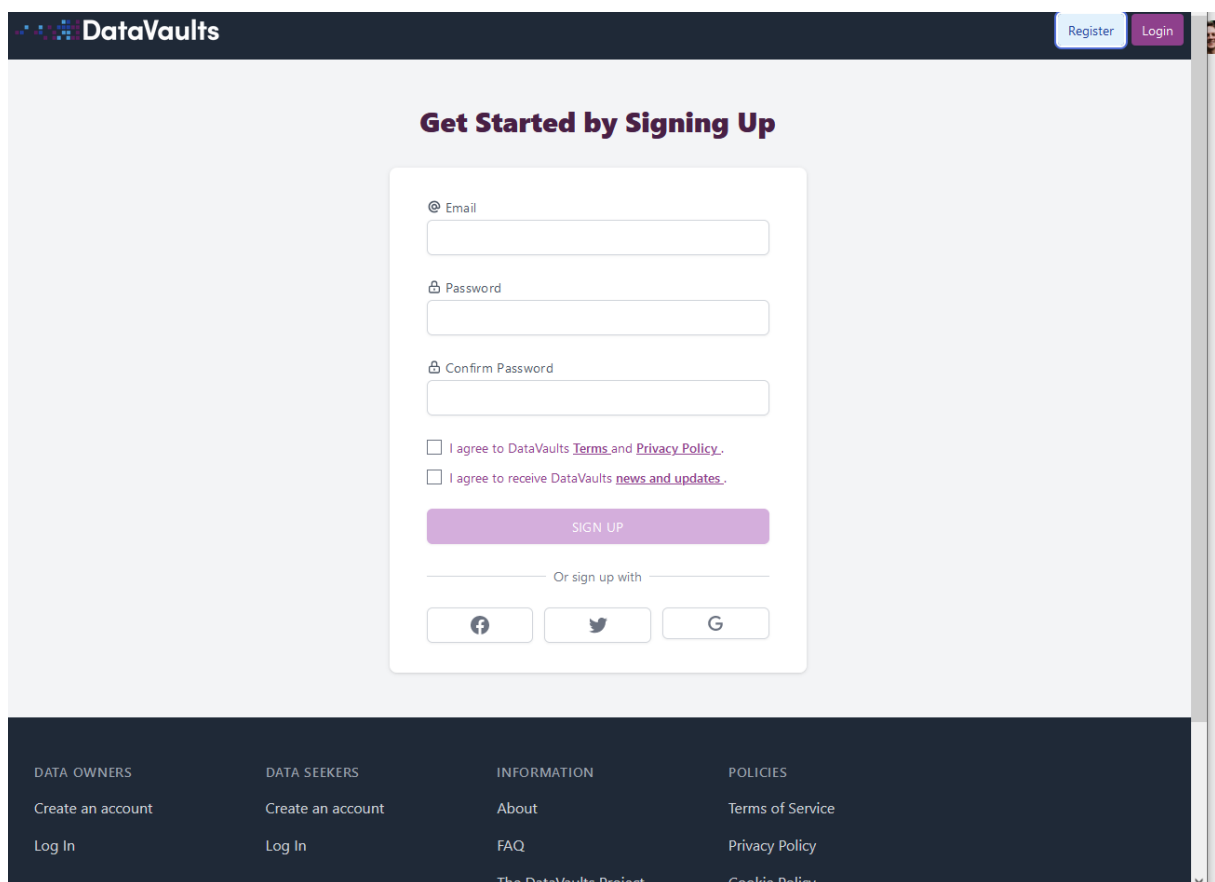
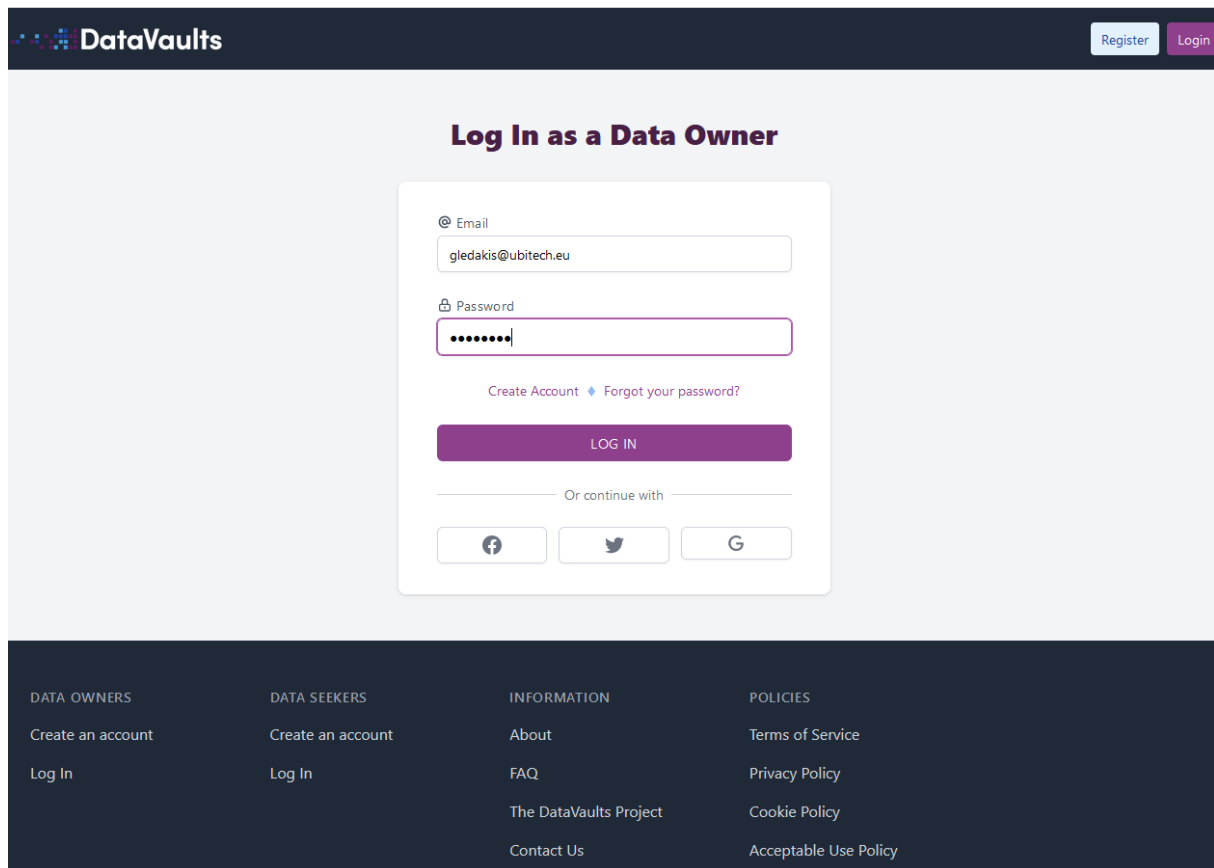


Figure 36: Registration on DataVaults



**DataVaults** [Register](#) [Login](#)

## Log In as a Data Owner

@ Email  
gledakis@ubitech.eu

🔒 Password  
••••••••

[Create Account](#) ♦ [Forgot your password?](#)

**LOG IN**

Or continue with

[f](#) [t](#) [G](#)

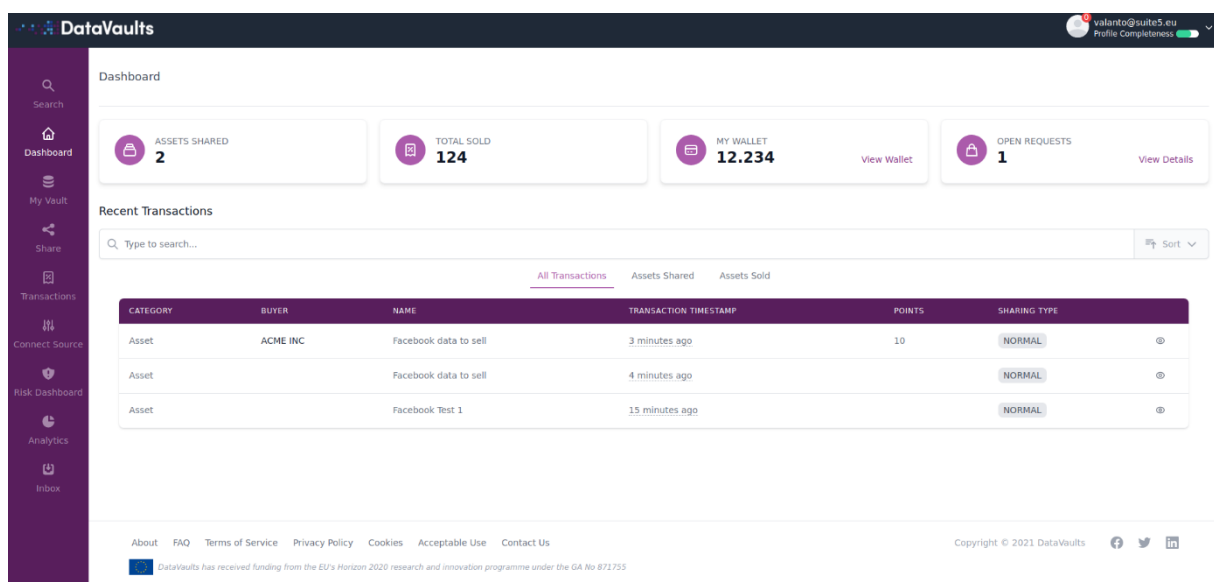
---

<b>DATA OWNERS</b>	<b>DATA SEEKERS</b>	<b>INFORMATION</b>	<b>POLICIES</b>
<a href="#">Create an account</a>	<a href="#">Create an account</a>	<a href="#">About</a>	<a href="#">Terms of Service</a>
<a href="#">Log In</a>	<a href="#">Log In</a>	<a href="#">FAQ</a>	<a href="#">Privacy Policy</a>
		<a href="#">The DataVaults Project</a>	<a href="#">Cookie Policy</a>
		<a href="#">Contact Us</a>	<a href="#">Acceptable Use Policy</a>

Figure 37: Login on DataVaults

### 3.1.1 Personal App

In this section, we present the supported functionality for the Personal App. Figure 38 depicts the dashboard of the user, while Figure 39 shows the profile page.



**DataVaults** [valanto@suite5.eu](#) Profile Completeness: ●

### Dashboard

ASSETS SHARED  
**2**

TOTAL SOLD  
**124**

MY WALLET  
**12.234**  
[View Wallet](#)

OPEN REQUESTS  
**1**  
[View Details](#)

### Recent Transactions

🔍 Type to search...

📄 Sort ▾

All Transactions						Assets Shared	Assets Sold
CATEGORY	BUYER	NAME	TRANSACTION TIMESTAMP	POINTS	SHARING TYPE		
Asset	ACME INC	Facebook data to sell	3 minutes ago	10	NORMAL	🔒	
Asset		Facebook data to sell	4 minutes ago		NORMAL	🔒	
Asset		Facebook Test 1	15 minutes ago		NORMAL	🔒	

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Figure 38: Personal App Dashboard

**DataVaults** valanto@suite5.eu Profile Completeness

### User Details

First Name:  Last Name:  Profile Picture: 

Street and Number:  Postal Code:

\* Image must be PNG or JPEG, not greater than 400x400 and not greater than 2MB

Country:  City:  Nationality:

Phone Number:  Birth Date:  Place of Birth:

National Insurance Number:  Social Security Number:  Occupation:

Qualification:  Transportation Means:  Cultural Interests:

Disabilities:  Civil Status:

Share your Profile Information excluding Personal Identifiers with Data Seekers? ☐

Figure 39: User Profile Page

From Figure 40 to Figure 47, the platform is used by the user in order to connect to a data source and then share to the cloud platform.

**DataVaults** valanto@suite5.eu Profile Completeness

### Add A Source

Name the Asset:

Provide keywords:

☒ Connect an online source ☐ Upload a file

Choose Source:

Give your credentials:

Collection frequency:

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Figure 40: Adding a Data Source

The screenshot shows the 'My Vault' section of the DataVaults platform. At the top, there's a search bar and a 'Last Update' dropdown. Below this is a table with columns: ASSET NAME, COLLECTION SOURCE, LAST UPDATE, ASSET TYPE, and SHARED. The table lists three assets: 'Facebook data to sell', 'Facebook Test 1', and 'My Facebook', all from 'FACEBOOK' and of type 'Dataset'. The 'LAST UPDATE' column shows times like '5 minutes ago', '34 minutes ago', and '2 hours ago'. The 'SHARED' column indicates 'Yes' or 'No'. At the bottom, there's a footer with links like 'About', 'FAQ', 'Terms of Service', etc., and a note about funding from the EU's Horizon 2020 research and innovation programme.

ASSET NAME	COLLECTION SOURCE	LAST UPDATE	ASSET TYPE	SHARED
Facebook data to sell	FACEBOOK	5 minutes ago	Dataset	Yes
Facebook Test 1	FACEBOOK	34 minutes ago	Dataset	Yes
My Facebook	FACEBOOK	2 hours ago	Dataset	No

Figure 41: View of User's Vault

The screenshot shows the 'Sharing Configuration' dialog. It asks 'Would you like to use an existing sharing configuration to share this asset or create a new one?'. There are two options: 'Create a new configuration' (selected) and 'Use an existing configuration'. Below this are three configuration cards: 'Maximum Privacy' (selected), 'Low Privacy', and 'Custom Settings'. Each card has a 'Set Price and Share with' header, a description, a list of features, and a 'Select Configuration' button.

**Sharing Configuration**  
Would you like to use an existing sharing configuration to share this asset or create a new one?

☒ Create a new configuration ☐ Use an existing configuration

**SELECTED**

**Set Price and Share with**

**Maximum Privacy**

Share your DataSet with Maximum Privacy settings.

- ✓ Share with Maximum Privacy
- ✓ DataSet Available to ALL, Using Encryption and TPM (if available).
- ✓ You still need to go through the Anonymisation Step.
- ✓ The data is not shared for persona generation.

Select Configuration

**Set Price and Share with**

**Low Privacy**

Share your DataSet with Low Privacy settings.

- ✓ DataSet Available to ALL, Not-Anonymised, Unencrypted.
- ✓ The data is shared also for Persona Generation.

Select Configuration

**Set Price and Share with**

**Custom Settings**

Share your DataSet with Custom Privacy settings.

- ✓ You choose the parameters of the sharing configuration.

Select Configuration

Figure 42: Sharing an asset – Part of the new Template/Wizard

- Search
- Dashboard
- My Vault
- Share
- Transactions
- Connect Source
- Risk Dashboard
- Analytics
- Inbox

valanto@suite5.eu  
Profile Completeness

Sharing Configurator - **Select Data Asset**

Asset to share

To start you need to select the asset you would like to share

Asset

Facebook Test 1

Preview

Please note that the table shows data vertically. The first column are the fields in the data and any subsequent columns are data entries. The table below shows at most 5 results.

TYPE	status	status
STATUS_TYPE	mobile_status_update	mobile_status_update
PRIVACY-ALLOW	-	-
PRIVACY-DENY	-	-
PRIVACY-DESCRIPTION	Your friends	Your friends
PRIVACY-FRIENDS	-	-
PRIVACY-VALUE	ALL_FRIENDS	ALL_FRIENDS
CREATED_TIME	2021-09-08T06:39:09+0000	2021-09-07T14:35:09+0000
MESSAGE	This is my second post!	My first test post!
FROM-NAME	John Smith	John Smith
FROM-ID	107731161575640	107731161575640

Asset information

Provide some basic information about the asset you would like to share

Data Asset Title

Facebook Test 1

Data Asset Description

A test of my facebook

Asset Keywords

test x facebook x

Continue

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[Acceptable Use](#)
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Figure 43: Sharing an asset (step1)

**DataVaults** Sharing Configurator - **Anonymisation**

**Anonymise your asset**  
Would you like to share this asset in anonymous manner?

☐ No, use my personal data ☒ Yes, help me anonymise it

**Choose a Pseudo-ID**

☒ Get a new Pseudoidentity  
☐ Select an existing Pseudoidentity

Make use of your Device TPM for improved privacy ☐

**Anonymisation Degree**  
Choose the degree of anonymisation to be applied

**Data Preview**

Please note that the table shows data vertically. The first column are the fields in the data and any subsequent columns are data entries. The table below shows at most 5 results.

TYPE	status	status	Anonymize?
STATUS_TYPE	mobile_status_update	mobile_status_update	Anonymize?
PRIVACY-ALLOW	-	-	Anonymize?
PRIVACY-DENY	-	-	Anonymize?
PRIVACY-DESCRIPTION	Your friends	Your friends	Anonymize?
PRIVACY-FRIENDS	-	-	Anonymize?
PRIVACY-VALUE	ALL_FRIENDS	ALL_FRIENDS	Anonymize?
CREATED_TIME	2021-09-08T06:39:09+0000	2021-09-07T14:35:09+0000	Anonymize?
MESSAGE	This is my second post!	My first test post!	Anonymize?
FROM-NAME	John Smith	John Smith	Anonymize?
FROM-ID	107731161575640	107731161575640	Anonymize?

No fields selected for anonymisation

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Figure 44: Anonymization while sharing an asset

**DataVaults** Sharing Configurator - **Access Policy Selection**

**Set your Access Policy or select an existing one.**

☒ Create a new brand Policy ☐ Load an existing Policy

Sector/Industry Group:

Organization Type:

Organization Size:

Continent:

Countries:

Reputation score:

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Figure 45: Creation of Access Policy for the sharing of an asset

**DataVaults** valanto@suite5.eu Profile Completeness

Sharing Configurator - **Other Sharing Information**

**Asset Price**  
Provide a price (in points) for this Data Asset

☒ Set specific price  [Suggest A Price!](#)

☐ Let Data Seekers Make an Offer

**License**  
Choose a license for sharing

☒ Standard License ☐ Author your Own License

Standard License:

The No Derivatives clause prevents anyone from producing a modified version of a work, whilst fully allowing sharing.

[For more information about the Creative Common licenses, click here.](#)

**Encryption**  
Select if you would like to share your data in an encrypted or unencrypted manner

☒ Share Unencrypted ☐ Share Encrypted

**Other Options**

Allow your Data Asset to be included in a Persona ☐

Use TPM to let DataVaults know your data is authentic ☐

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Figure 46: Sharing configuration

**DataVaults** valanto@suite5.eu Profile Completeness

Sharing Configurator - **Review And Execute**

**Risk Exposure**  
Based on this Configuration, your Risk Exposure is: 30 [View More](#)

**Configuration Preview**

Asset Name	Facebook Test 1
Description	A test of my facebook
Keywords	<input type="text" value="test"/> <input type="text" value="facebook"/>
Anonymise Asset	<input checked="" type="checkbox"/>
Price	21 points
License Type	Standard License
Selected License	CC-BY-ND
Encrypt Asset	<input checked="" type="checkbox"/>
Include in Persona	<input checked="" type="checkbox"/>
Authenticate with TPM	<input checked="" type="checkbox"/>
Sectors allowed	Energy
Types allowed	Research/Academic Institution
Sizes allowed	small (10-49)
Continents allowed	America
Countries allowed	Spain
Minimum Reputation Score allowed	2

**Configuration Details**  
Provide a name to save this configuration:  [Save Configuration](#)

[Go Back](#) [Share your Asset](#)

Please have in mind that by sharing an asset your profile will also be shared and continue to be shared after every update

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Figure 47: Final Step for Sharing an Asset



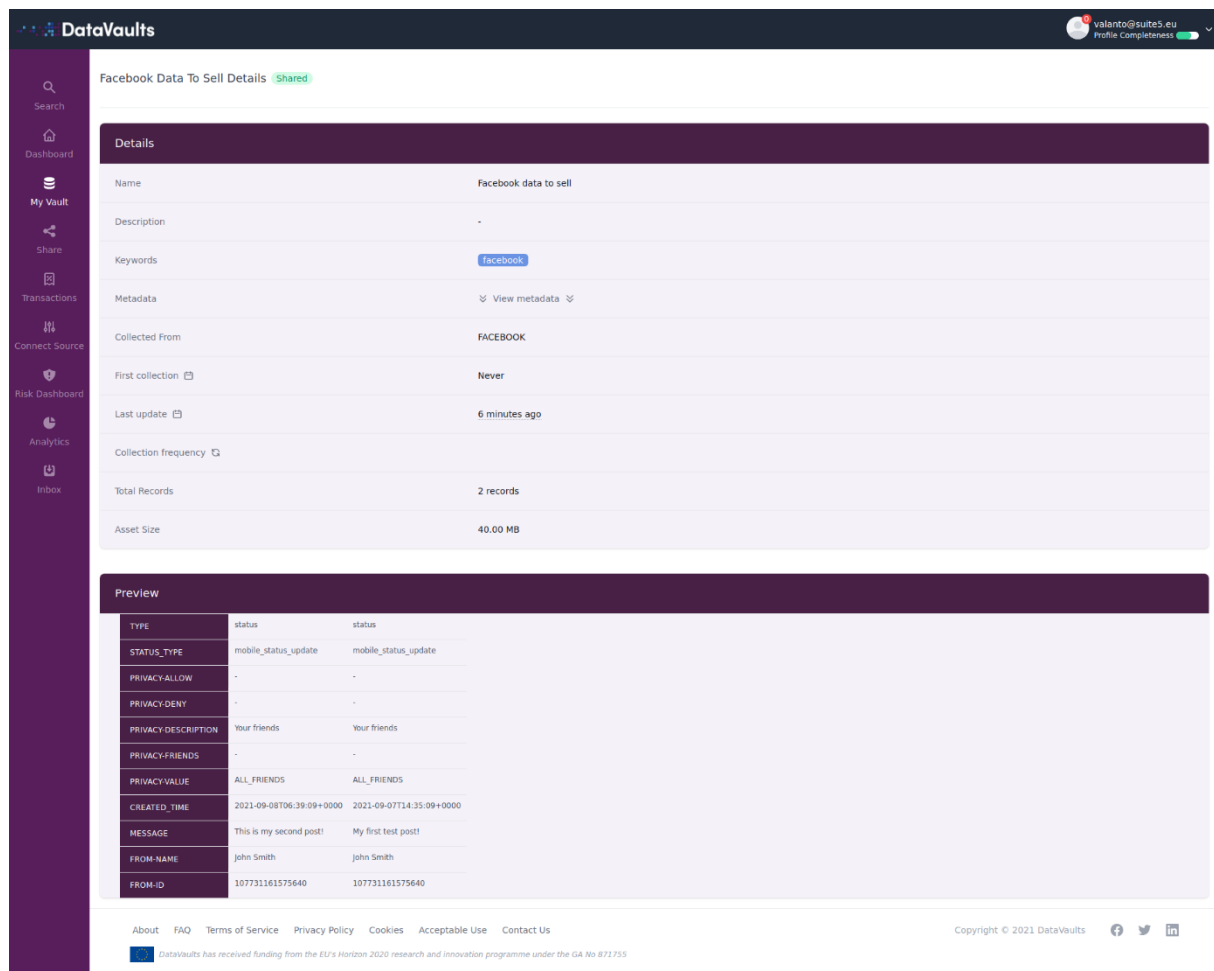
In addition to the proactive sharing of a data asset by the User, DataVaults allows a Data Seeker to request for data and also to use questionnaires for the data collection, as shown from Figure 48 to Figure 51.

The screenshot displays the DataVaults web interface. At the top, a dark header bar contains the 'DataVaults' logo on the left and a user profile 'valanto@suite5.eu' with a 'Profile Completeness' indicator on the right. A left-hand sidebar lists navigation options: Search, Dashboard, My Vault, Share, Transactions, Connect Source, Risk Dashboard, Analytics, and Inbox. The main content area shows a message titled 'Facebook Data To Sell' received 'a few seconds ago'. Below the message, a blue banner states: 'Data Seeker ACME INC (http://www.example.org) would like to request access to asset Facebook data to sell with the following sharing configuration for the price of: 10 points.' A 'Configuration Preview' table is shown with the following details:

Configuration Preview	
Asset Name	Facebook data to sell
Description	Facebook data to sell
Keywords	None specified
Anonymise Asset	<input checked="" type="checkbox"/>
Price	Upon Request
License Type	Standard License
Selected License	CC-BY
Encrypt Asset	<input checked="" type="checkbox"/>
Include in Persona	<input checked="" type="checkbox"/>
Authenticate with TPM	<input checked="" type="checkbox"/>
Sectors allowed	Industrials
Types allowed	Research/Academic Institution
Sizes allowed	small (10-49)
Continents allowed	Africa
Countries allowed	Spain
Minimum Reputation Score allowed	1

At the bottom of the configuration preview, three buttons are visible: 'Reject offer and blacklist this data seeker' (red), 'Reject offer' (grey), and 'Accept offer for 10 points' (purple). The footer contains links for About, FAQ, Terms of Service, Privacy Policy, Cookies, Acceptable Use, and Contact Us, along with a copyright notice 'Copyright © 2021 DataVaults' and social media icons. A small note mentions funding from the EU's Horizon 2020 research and innovation programme.

Figure 48: Request for Dataset



**Facebook Data To Sell Details** Shared

**Details**

Name	Facebook data to sell
Description	-
Keywords	facebook
Metadata	View metadata
Collected From	FACEBOOK
First collection	Never
Last update	6 minutes ago
Collection frequency	
Total Records	2 records
Asset Size	40.00 MB

**Preview**

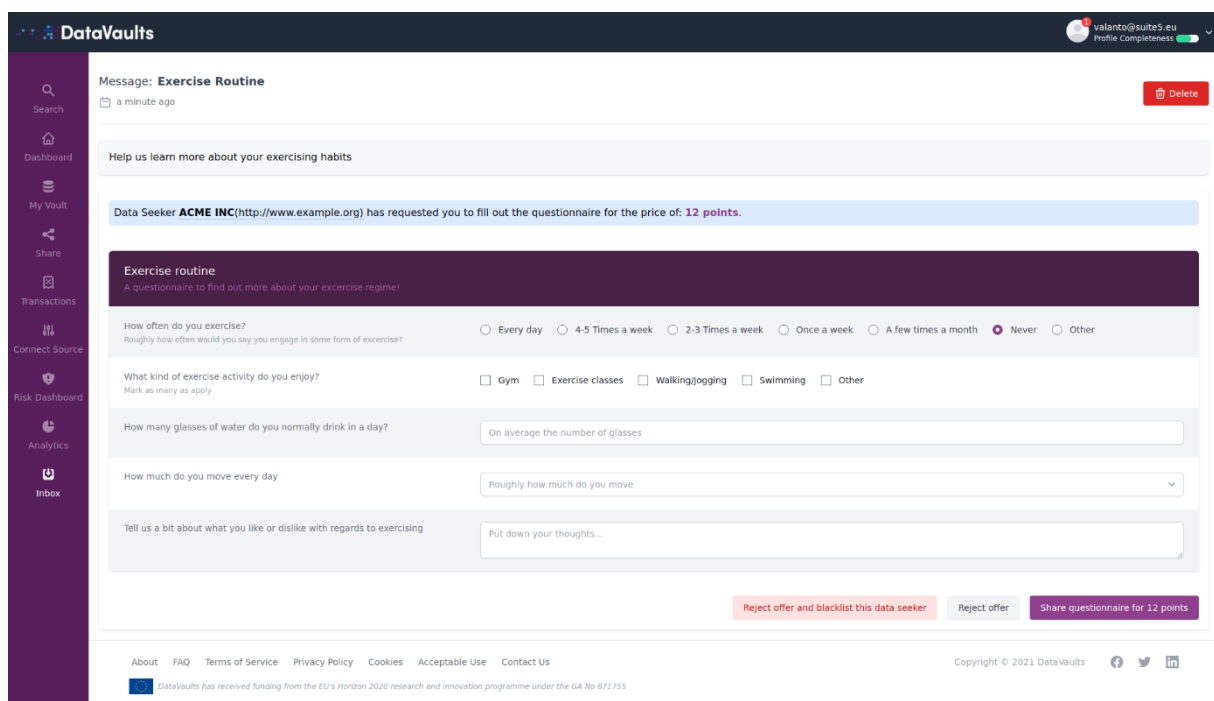
TYPE	status	status
STATUS_TYPE	mobile_status_update	mobile_status_update
PRIVACY-ALLOW	-	-
PRIVACY-DENY	-	-
PRIVACY-DESCRIPTION	Your friends	Your friends
PRIVACY-FRIENDS	-	-
PRIVACY-VALUE	ALL_FRIENDS	ALL_FRIENDS
CREATED_TIME	2021-09-08T06:39:09+0000	2021-09-07T14:35:09+0000
MESSAGE	This is my second post!	My first test post!
FROM-NAME	John Smith	John Smith
FROM-ID	107731161575640	107731161575640

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Figure 49: Asset View



**Message: Exercise Routine** a minute ago Delete

Help us learn more about your exercising habits

Data Seeker **ACME INC**(<http://www.example.org>) has requested you to fill out the questionnaire for the price of: **12 points**.

**Exercise routine**  
A questionnaire to find out more about your exercise regime!

How often do you exercise?  
Roughly how often would you say you engage in some form of exercise? ☐ Every day ☐ 4-5 Times a week ☐ 2-3 Times a week ☐ Once a week ☐ A few times a month ☒ Never ☐ Other

What kind of exercise activity do you enjoy?  
Mark as many as apply ☐ Gym ☐ Exercise classes ☐ Walking/jogging ☐ Swimming ☐ Other

How many glasses of water do you normally drink in a day?  
On average the number of glasses

How much do you move every day  
Roughly how much do you move

Tell us a bit about what you like or dislike with regards to exercising  
Put down your thoughts...

Reject offer and blacklist this data seeker
Reject offer
Share questionnaire for 12 points

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Figure 50: Request for a Questionnaire

**DataVaults** valanto@suite5.eu Profile Completeness: 100%

Message: **Exercise Routine**  
a minute ago Delete

Help us learn more about your exercising habits

Data Seeker **ACME INC**(http://www.example.org) has requested you to fill out the questionnaire for the price of: **12 points**.

**Exercise routine**  
A questionnaire to find out more about your exercise regime!

How often do you exercise?  
Roughly how often would you say you engage in some form of exercise?  
☒ Every day ☐ 4-5 Times a week ☐ 2-3 Times a week ☐ Once a week ☐ A few times a month ☐ Never ☐ Other

What kind of exercise activity do you enjoy?  
Mark as many as apply  
☐ Gym ☐ Exercise classes ☐ Walking/jogging ☐ Swimming ☐ Other  
 The question 2 is required

How many glasses of water do you normally drink in a day?

How much do you move every day

Tell us a bit about what you like or dislike with regards to exercising

Reject offer and blacklist this data seeker Reject offer Share questionnaire for 12 points

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Figure 51: Participation to a Questionnaire

The user can always check the transactions related with the data that owns in DataVaults, as shown in Figure 52 and the Transactions Analytics page, as shown in Figure 53.

**DataVaults** valanto@suite5.eu Profile Completeness: 100%

Transactions

ASSETS SHARED **2** TOTAL SOLD **124** MY WALLET **12.234** View Wallet OPEN REQUESTS **2** View Details

Type to search... Sort

All Transactions Assets Shared Assets Sold

CATEGORY	BUYER	NAME	TRANSACTION TIMESTAMP	POINTS	SHARING TYPE
Asset	ACME INC	Facebook data to sell	2 minutes ago	10	NORMAL
Asset		Facebook data to sell	3 minutes ago		NORMAL
Asset		Facebook Test 1	14 minutes ago		NORMAL

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Figure 52: List of Transactions

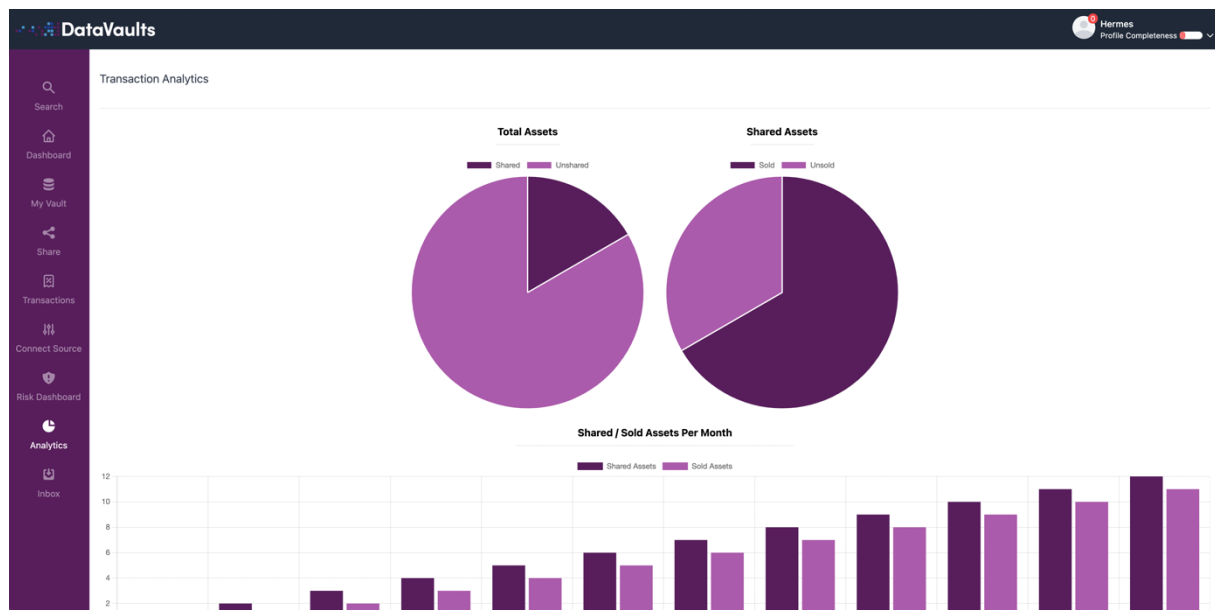


Figure 53: Transactions Analytics Page

### 3.1.2 Cloud Platform

In addition to the provided APIs and Backbone services, the Cloud Platform provides version 1.0 of the frontend that is used by the Data Seekers, as shown from Figure 54 to Figure 67.

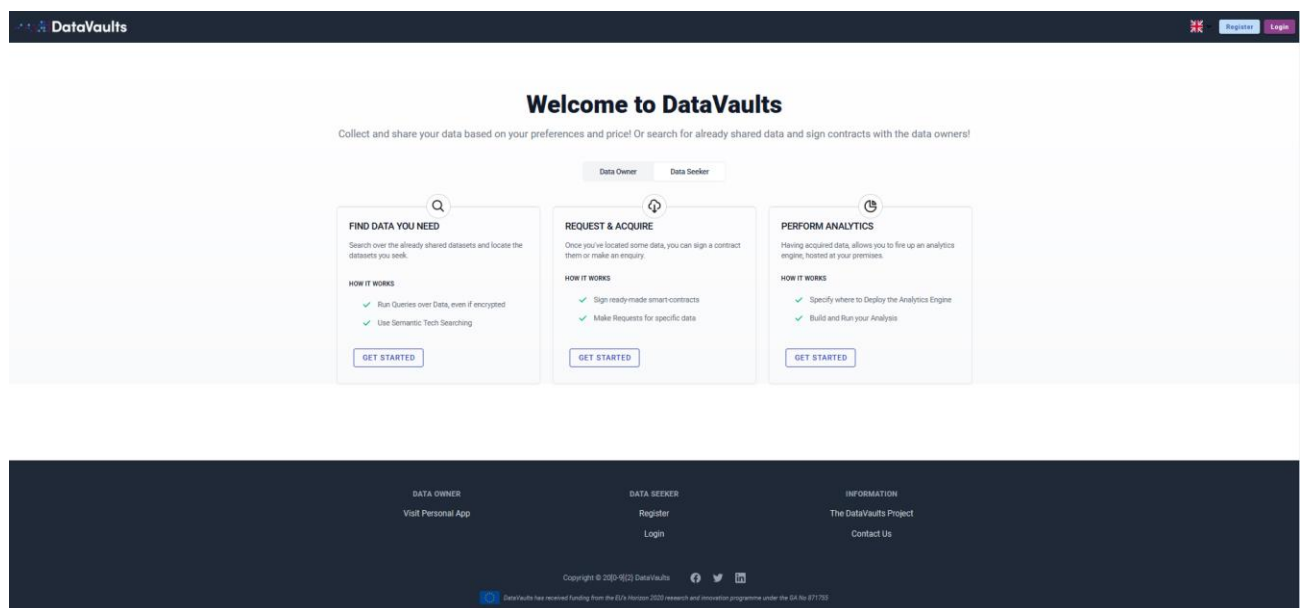


Figure 54: Cloud Platform Landing Page

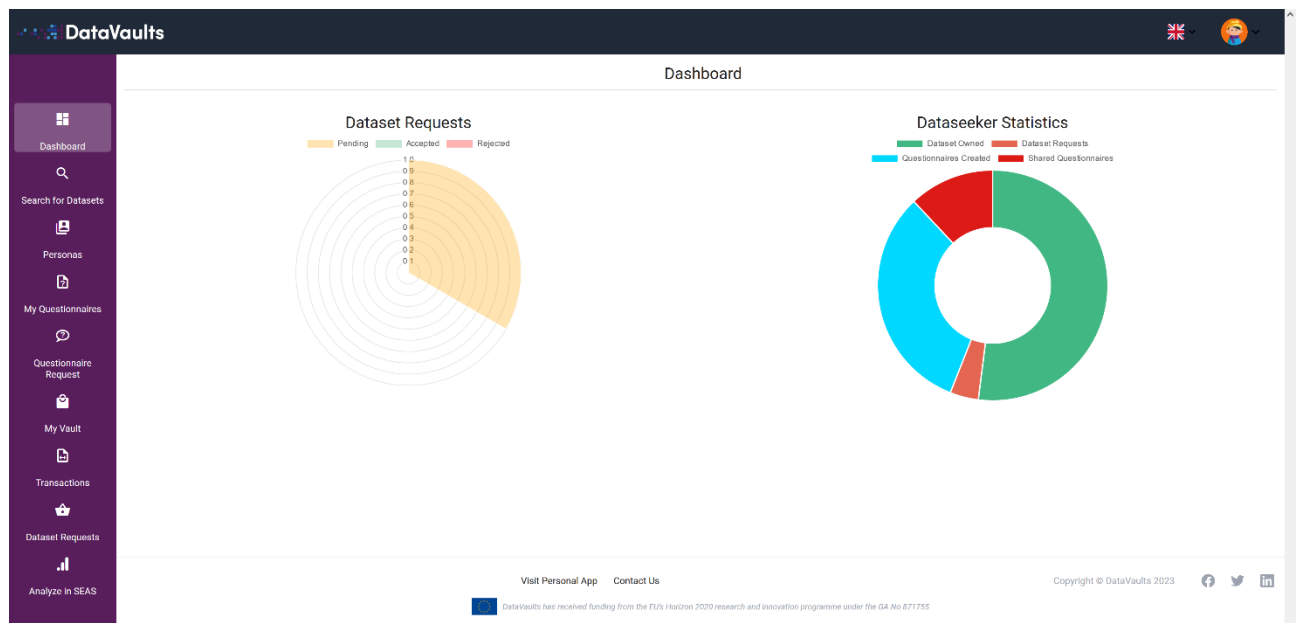


Figure 55: Cloud Platform Dashboard

Update user Avatar. Update user Timezone. Update user Date Format.

**Profile Settings**

Profile

Avatar

CHANGE AVATAR

Full Name

trainer

Email

Timezone and Region

Time Zone

Europe/Athens

Date Format

31/01/2021

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Figure 56: Data Seeker Profile

**DataVaults** Organization Information

Organization

**Name**  
Test Organization

**Sector**  
Test Sector

**Continent**  
EU

**Country**  
Greece

**Type**  
Private Entity

**Size**  
medium

**Reputation Score**  
7

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Figure 57: Data Seeker Organization Profile

**DataVaults** Search for Datasets

Search Terms  
Twitter

SEARCH

Advanced Search

NAME	DESCRIPTION	PRICE	TPM VERIFIED
Blockchain Test	Occupations 2, transporationsMeans 3, twitter sourced 10	11	TPM VERIFIED
Privacy Mapping Test	Occupations 2, transporationsMeans 3, twitter sourced 10	11	TPM VERIFIED
Twitter test Twitter test Twitter test Twitter test Twitter test	Twitter test Twitter test Twitter test Twitter test Twitter test Twitter test	open for offer	
Twitter test test 18/04	Twitter test test 18/04	open for offer	
Twitter 2 21/4	Twitter	1	
Twitter hourly 25/04	Twitter hourly 25/04	03	
Twitter test 26/04	Twitter test 26/04	open for offer	
Blockchain Test v2	Occupations 2, transporationsMeans 3, twitter sourced 10	11	TPM VERIFIED
Blockchain Test v2	Occupations 2, transporationsMeans 3, twitter sourced 10	11	TPM VERIFIED
twitter 2	twitter 2	open for offer	

Datasets per Page 10 1-10 of 20

Figure 58: Searching for datasets in the Query Builder

**DataVaults**

Search for Datasets

Search Terms

**Advanced Search**

Source: Keywords: License:

Price: Minimum value: Maximum value: Anonymised: Encrypted:

**User Profile**

Postal Code: Social Security Number: National Insurance Number:

Country: Region: City:

Nationality:

Age Groups: Minimum value: Maximum value:

Occupation: Education:

Transportation Means: Cultural Interests: Civil Status: Disability:

Figure 59: Advanced search

**DataVaults**

Personas

PERSONAS

Search

+ CREATE A PERSONA

TITLE	DESCRIPTION	PRICE	STATUS	ACTIONS
Atos Test1	Atos Test1 desc	26	Completed	👁️ 🔄 🗑️
Atos Test2	Atos Test2	26	Completed	👁️ 🔄 🗑️
Atos Test3	Atos Test3	26	Completed	👁️ 🔄 🗑️
Atos Test4	Atos Test4	169	Error	👁️ 🔄 🗑️
Atos Test5	Atos Test5	1	Completed	👁️ 🔄 🗑️

Personas per page: 5 1-5 of 9

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Figure 60: Personas list

**Persona Datasets**

Search

NAME	DESCRIPTION	PRICE	TPM VERIFIED
Example Twitter Dataset 1	Occupations 2, transporationsMeans 3, twitter example 1	13	true
Example Twitter Dataset 2	Occupations 2, transporationsMeans 3, twitter example 2	13	true

Datasets per Page: 10 1-2 of 2

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Figure 61: Datasets of a Persona

**Questionnaires**

QUESTIONNAIRES

Search

TITLE	STATUS	DATE CREATED	DATE LAST UPDATED	ACTIONS
This is a test questionnaire	Finalized	26/07/2022	26/07/2022	
My second Questionnaire	Finalized	06/07/2022	06/07/2022	
Dummy Data	Finalized	14/06/2022	14/06/2022	
string	Draft	18/01/2023	Invalid Date	
Questionario Museo Palazzo Pretorio, Trainer	Finalized	16/03/2023	16/03/2023	

Questionnaires per page: 5 1-5 of 5

OPEN QUESTIONNAIRES STATUS

Search

TITLE	LICENSE	PRICE	DATE SHARED	ACTIONS
Questionario Museo Palazzo Pretorio, Trainer	CC-BY	10	16/03/2023	
This is a test questionnaire	CC-BY	5	07/03/2023	
My second Questionnaire	CC-BY	2	13/12/2022	

Questionnaires per page: 10 1-3 of 3

NEW SHARE

Figure 62: List of Questionnaires



The screenshot shows the 'Request a questionnaire to be filled' interface in the DataVaults platform. The left sidebar contains navigation links: Dashboard, Search for Datasets, Personas, My Questionnaires, Questionnaire Request (active), My Vault, Transactions, Dataset Requests, and Analyse in SEAS. The main form area has a title bar 'Request a questionnaire to be filled'. Below it is a 'Questionnaire \*' dropdown menu with a '+ CREATE A QUESTIONNAIRE' button. A large text area for 'Data Seeker's Message \*' is present. Below this is a 'License \*' dropdown and a 'Price Suggested' field with a 'points' unit. The form includes several filter sections: 'Countries' (AI), 'Regions' (AI), 'Cities' (AI), 'Neighborhoods' (AI), 'Age Groups' (AI), 'Our Regions' (AI), 'Occupations' (AI), 'Education' (AI), 'Transportation Means' (AI), and 'Cultural Interests' (AI). At the bottom, there are input fields for 'Postal Code', 'Social Security Number', and 'National Insurance Number'. A 'SEND REQUEST' button is at the bottom right.

Figure 63: Request for a questionnaire

The screenshot shows the 'Create A Questionnaire' interface in the DataVaults platform. The left sidebar is identical to Figure 63. The main form area has a title bar 'Create A Questionnaire'. It includes a 'Title \*' field with the value 'Sample Questionnaire'. Below this is a large text area for 'Intro message \*' with the text 'This is an intro message'. An 'Expiration Date' field shows '04/05/2023'. A 'Question, Type:' dropdown menu is set to 'dropdown'. Below this is another 'Title \*' field with the value 'Eating Habits'. A 'Description' field contains the text 'Please select the food you consume the most on a weekly basis from the list below.'.

Figure 64: Creation of a questionnaire

The screenshot shows the 'My Vault' section of the DataVaults platform. It is divided into two main panels: 'SHARED DATASETS' and 'UPLOADED DATASETS'. Both panels have a search bar and a table of datasets with columns for NAME, ASSET ID, DESCRIPTION, and DOWNLOAD. The 'SHARED DATASETS' panel lists several datasets, including 'Consumo', 'Consumo de energia en casa', 'test', 'Certificado de notaría', 'datavault2020', 'datavault2020 encryption', 'datavault2020 encryption', 'Example Twitter Dataset 1', 'Example Twitter Dataset 2', and 'Milestream clientes'. The 'UPLOADED DATASETS' panel shows one dataset: 'medium gun json'.

NAME	ASSET ID	DESCRIPTION	DOWNLOAD
Consumo	73932a08-1c17-44d5-a797-03a4f1c85943	Consumo de energia en casa	↓
Consumo	4ed391c9-e18b-47b7-9706-5a72295e77d9	Consumo de energia en casa	↓
Milestream - test	3d9f6e2d-9902-4093-a01b-74772a12c918	test	↓
Certificado Notaría	47c15c40-5324-4360-9f5c-e98a7c7d6aef	Certificado de notaría otorgado del Comarca de Ponte	↓
datavault2020	5863c56c-2fbc-4719-995b-a8653644cdc8	datavault2020 twitter	↓
datavault2020 encryption	de1a4c91-5acd-40a3-a01b-74772a12c918	datavault2020 twitter	↓
datavault2020 encryption	55c8b1f0-f18d-4f9a-ab26-24be4dc9b3b6	datavault2020 twitter	↓
Example Twitter Dataset 1	11262c2f-079d-4e44-827f-839802f99902	Occupations 2, transportationMeans 3, twitter example 1	↓
Example Twitter Dataset 2	11262c2f-079d-4e44-827f-839802f99902	Occupations 2, transportationMeans 3, twitter example 2	↓
Milestream clientes	59df9a26-7d08-422f-87a4-0fb88aaa7106	Este es un cuestionario de prueba	↓

NAME	ASSET ID	DESCRIPTION	DOWNLOAD
medium gun json	46c5348f-5a7b-4a18-a858-0a0563d2c276	Example RAR Dataset Test	↓

Figure 65: Data Seeker's Vault

The screenshot shows the 'Transactions' section of the DataVaults platform. At the top, there are three summary cards: 'ASSETS BOUGHT 14', 'WALLET BALANCE 76', and 'OPEN REQUESTS 1'. Below these is a search bar and a table of transactions with columns for ASSET ID, TYPE, and DATE. The table lists several transactions, including 'Direct from Cloud Platform' and 'Bulk Purchase from Cloud Platform'.

ASSET ID	TYPE	DATE ↓
✓ e8f97d52-484f-4e65-bfa9-3f261826d748	Direct from Cloud Platform	25/04/2023
✓ 183afb61-306b-4f6e-9e58-9f44cac16ba0	Direct from Cloud Platform	25/04/2023
✓ b9df9a26-7d08-422f-87a4-0fb88aaa7106	Direct from Cloud Platform	25/04/2023
✓ 11262c2f-079d-4e44-827f-839802f99902	Bulk Purchase from Cloud Platform	12/04/2023
✓ 11262c2f-079d-4e44-827f-839804k3e02	Bulk Purchase from Cloud Platform	12/04/2023
✓ 11262c2f-079d-4e44-827f-839802f99902	Bulk Purchase from Cloud Platform	07/04/2023
✓ 11262c2f-079d-4e44-827f-839804k3e02	Bulk Purchase from Cloud Platform	07/04/2023
✓ 55c8b1f0-f18d-4f9a-ab26-24be4dc9b3b6	Direct from Cloud Platform	03/04/2023
✓ de1a4c91-5acd-40a3-a01b-74772a12c918	Direct from Cloud Platform	03/04/2023
✓ 5863c56c-2fbc-4719-995b-a8653644cdc8	Direct from Cloud Platform	28/02/2023

Figure 66: Transactions

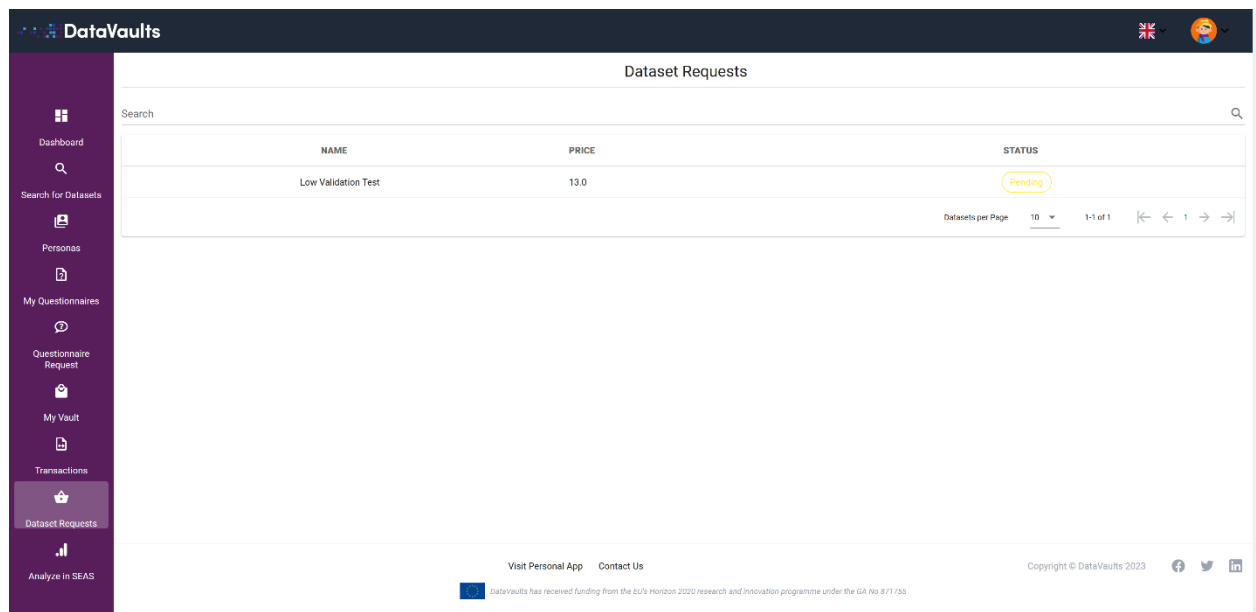


Figure 67: Dataset requests

### 3.1.3 Secure Analytics Playground

The updates to the frontend and backend functionalities since SEAS 1.0 are covered in current section of the deliverable. The major updates, which were already introduced in section 2.2.5, can be grouped into the following categories:

- Front-end updates: availability of a common Jupyter notebook to analyse questionnaire answers, and support for Jupyter notebooks as part of the Analytics Playground as demonstrated in Figure 68 and Figure 70, respectively.
- Back-end updates: Figure 69 depicts the retrieval of questionnaires from the SEAS GUI as part of the preparation of the SEAS local deployment process to produce the local deployment instructions.

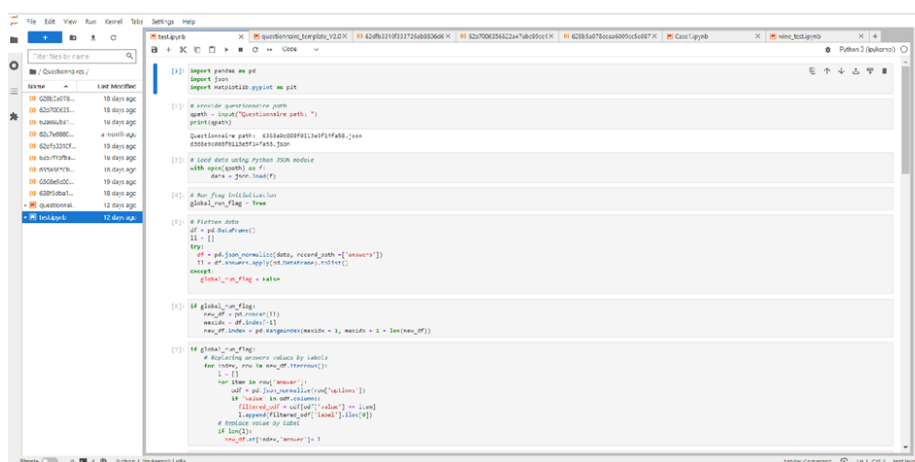


Figure 68: Jupyter notebook

QUESTIONNAIRES		
Select questionnaires to include		
Questionnaire ID	Title	Intro
<input type="checkbox"/> 628b5a078ceaa6009cc5e087	Questionario mobilità	Questionario di prova
<input type="checkbox"/> 62a7006356822a47abc89ce1	Questionario di prova	Una prova per la interfaccia in italiano
<input type="checkbox"/> 6357f4bfae2692a507e6e9c	Questionario prova	Prova finalizzazione
<input type="checkbox"/> 635a3850bae2692a507e6eaa	Questionario Museo	Questionario visita ai musei
<input type="checkbox"/> 6368e9c008f0113e5f14fa58	Questionario Museo Civico	Questionario museo civico di Prato
<input type="checkbox"/> 638f5dba1be6cd7c358edc53	Prova1	Test download risultati
<input type="checkbox"/> 63c6c9a144b17610865d00a3	Prova museo civico	Questionario di prova
<input type="checkbox"/> 6400b1a80581ed01f66636fe	Test for multiple answers	lorem ipsum
<input type="checkbox"/> 6405a24e0581ed01f6663709	Prova domande	Verifica modalità di risposta

Figure 69: SEAS Questionnaire selection



Figure 70: Questionnaires analytics template

## 3.2 PLATFORM INSTALLATION

For each component, individual installation instructions have been provided in Section 2.1. Since all components have been dockerized, the main prerequisite to install the DataVaults platform is to have Docker and Docker-Compose installed in all the VMs. The complete list of requirements is:

- 8 VMs with at least 8GB Ram and 4 VCPUs each for the DLT Engine
- 1 VM with at least 4GB Ram and 2 VCPUs for the Identity Manager
- 1 VM with at least 4GB Ram and 2 VCPUs for the Triple Store
- 1 VM with at least 2GB Ram and 1 VCPUs for the Message Queue
- 1 VM with at least 4GB Ram and 2 VCPUs for the Data Fetcher

- 1 VM with at least 4GB Ram and 2 VCPUs for the Risk Dashboard
- 1 VM with at least 8GB Ram and 2 VCPUs for the Cloud Platform
- 1 VM with at least 8GB Ram and 2 VCPUs for the Personal App
- 1 Android phone with access to the Google Play Store for the Mobile App

Inside the Cloud Platform VM, the list of services that need to be initialized via their respective docker-compose files, as described in Section 2.2 is:

- Cloud Platform Backbone
- Persona Generator
- Access Policy + ABE Engine
- Secure Analytics Playground

Similarly, inside the Personal App VM, the list of services that need to be initialized via their respective docker-compose files, as described in Section 2.3 is:

- Personal App Backbone
- Private Wallet
- Anonymiser

## 4 TECHNICAL ASSURANCE

### 4.1 CONTINUOUS INTEGRATION

To assist the development and integration of the platform components, as well as to ensure the quality of the developed platform, various tools and methodologies have been used. The main tool used from the consortium was GitLab; GitLab has been used not only for the code repository capabilities but also for the Continuous Integration and Continuous Delivery in the frame of the project.

We tried to follow a prevention-based approach on the code quality part during the development and integration of the project's components. Towards this, we suggested using SonarQube and SonarLint, while we increased the importance of the security testing and used security training and guidelines. Finally, in addition to the usage of GitLab for the management of issues, the usage the project's Slack channel for day communication (with over 10000 messages exchanged), also helped us to achieve this goal.

More details about the usage of these tools are provided in the subsections below.

#### 4.1.1 Components Availability

All components of the DataVaults Platform have been developed and uploaded in the Gitlab repository of the project<sup>4</sup>, an overview of which is presented in Figure 71.

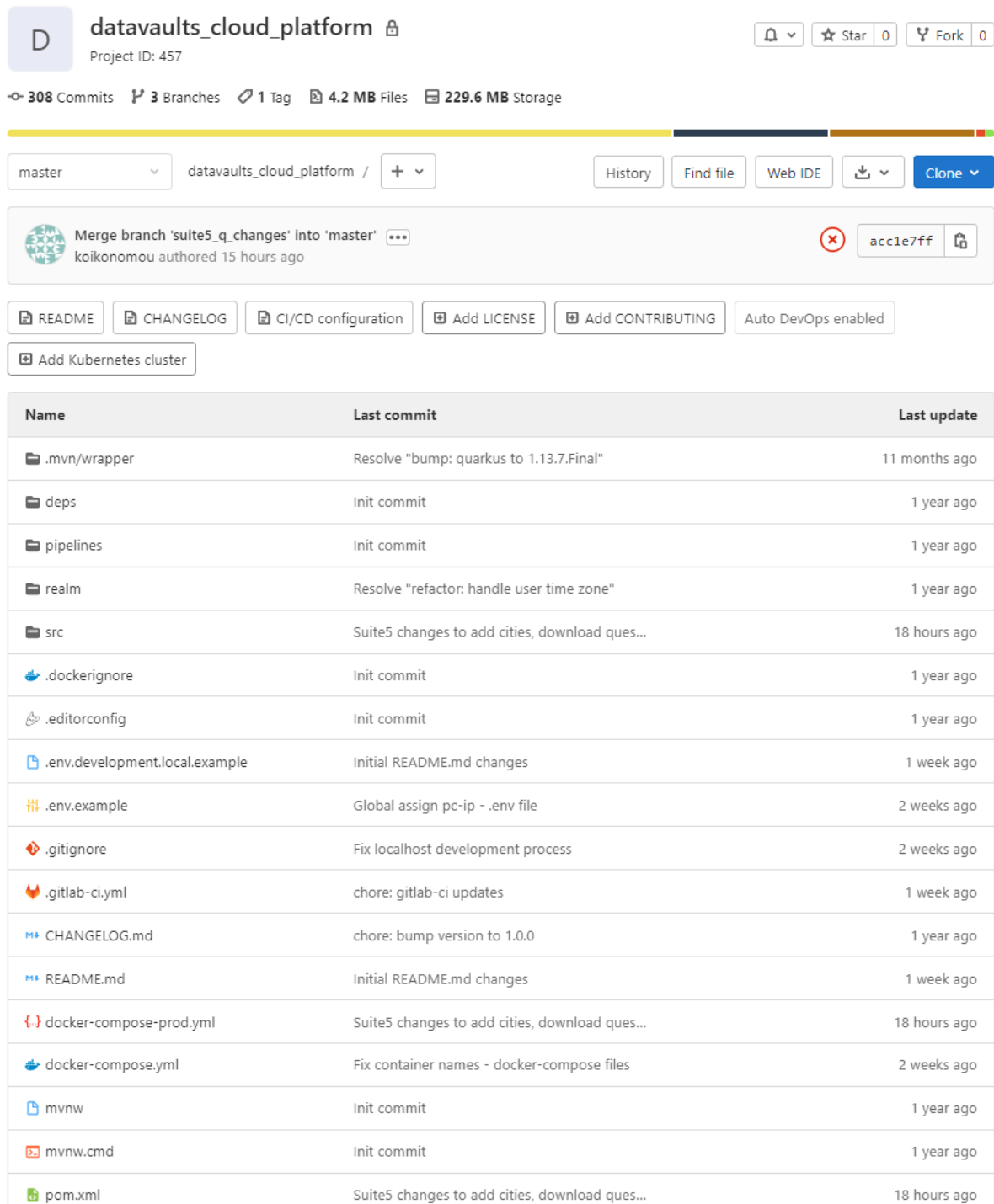
---


<sup>4</sup> [https://gitlab.ubitech.eu/cs3/datavaults\\_cloud\\_platform](https://gitlab.ubitech.eu/cs3/datavaults_cloud_platform)

Subgroups and projects		Shared projects	Archived projects	<div>Q Search</div>	<div>Updated ▾</div>	<div>↓</div>	
<div>Q</div>	<div>query-builder</div>				<div>0</div>	<div>0</div>	<div>1</div>
<div>P</div>	<div>PersonalApp</div>				<div>4</div>	<div>5</div>	<div>1</div>
<div>A</div>	<div>ABEEncryption</div>			<div>★ 0</div>			<div>23 hours ago</div>
<div>D</div>	<div>Demobugs</div>			<div>★ 0</div>			<div>2 days ago</div>
<div>V</div>	<div>Validation Test</div>			<div>★ 0</div>			<div>1 week ago</div>
<div>P</div>	<div>Personal App Frontend</div> <div>The personal app frontend application</div>			<div>★ 2</div>			<div>4 weeks ago</div>
<div>P</div>	<div>Personal App Backend</div>			<div>★ 1</div>			<div>1 month ago</div>
<div>S</div>	<div>Suite5 Cloud Frontend</div> <div>The frontend pages implemented by suite5 for the cloud</div>			<div>★ 1</div>			<div>1 month ago</div>
<div>C</div>	<div>Cloud Platform Backend</div> <div>Backend and APIs for the cloud platform of DataVaults</div>			<div>★ 0</div>			<div>1 month ago</div>
<div>B</div>	<div>Blockchain DLT Engine</div>			<div>★ 0</div>			<div>1 month ago</div>
<div>C</div>	<div>cloud-platform</div>			<div>★ 0</div>			<div>2 months ago</div>
<div>P</div>	<div>Persona Generator</div>			<div>★ 0</div>			<div>2 months ago</div>
<div>R</div>	<div>Risk Management Monitor</div>			<div>★ 0</div>			<div>7 months ago</div>
<div>P</div>	<div>PersonalApp Analytics</div>			<div>★ 0</div>			<div>1 year ago</div>
<div>M</div>	<div>Merchant backend service for wallet ap</div>			<div>★ 0</div>			<div>1 year ago</div>
<div>A</div>	<div>ABEEng</div>			<div>★ 0</div>			<div>1 year ago</div>

Figure 71: DataVaults Gitlab Repository

This general repository contains subfolders and subrepositories for all the components of the DataVaults platform, each with their own issues and CI management, which will be explained in the following sections. The repository of the Cloud Platform Backbone is presented in Figure 72 as an example of a typical project repository.



**datavaults\_cloud\_platform**  Project ID: 457

308 Commits 3 Branches 1 Tag 4.2 MB Files 229.6 MB Storage

master datavaults\_cloud\_platform / + History Find file Web IDE Clone

Merge branch 'suite5\_q\_changes' into 'master' koikonomou authored 15 hours ago

README CHANGELOG CI/CD configuration Add LICENSE Add CONTRIBUTING Auto DevOps enabled

Add Kubernetes cluster

Name	Last commit	Last update
.mvn/wrapper	Resolve "bump: quarkus to 1.13.7.Final"	11 months ago
deps	Init commit	1 year ago
pipelines	Init commit	1 year ago
realm	Resolve "refactor: handle user time zone"	1 year ago
src	Suite5 changes to add cities, download ques...	18 hours ago
.dockerignore	Init commit	1 year ago
.editorconfig	Init commit	1 year ago
.env.development.local.example	Initial README.md changes	1 week ago
.env.example	Global assign pc-ip - .env file	2 weeks ago
.gitignore	Fix localhost development process	2 weeks ago
.gitlab-ci.yml	chore: gitlab-ci updates	1 week ago
CHANGELOG.md	chore: bump version to 1.0.0	1 year ago
README.md	Initial README.md changes	1 week ago
docker-compose-prod.yml	Suite5 changes to add cities, download ques...	18 hours ago
docker-compose.yml	Fix container names - docker-compose files	2 weeks ago
mvnw	Init commit	1 year ago
mvnw.cmd	Init commit	1 year ago
pom.xml	Suite5 changes to add cities, download ques...	18 hours ago

Figure 72 DataVaults Cloud Platform Repository

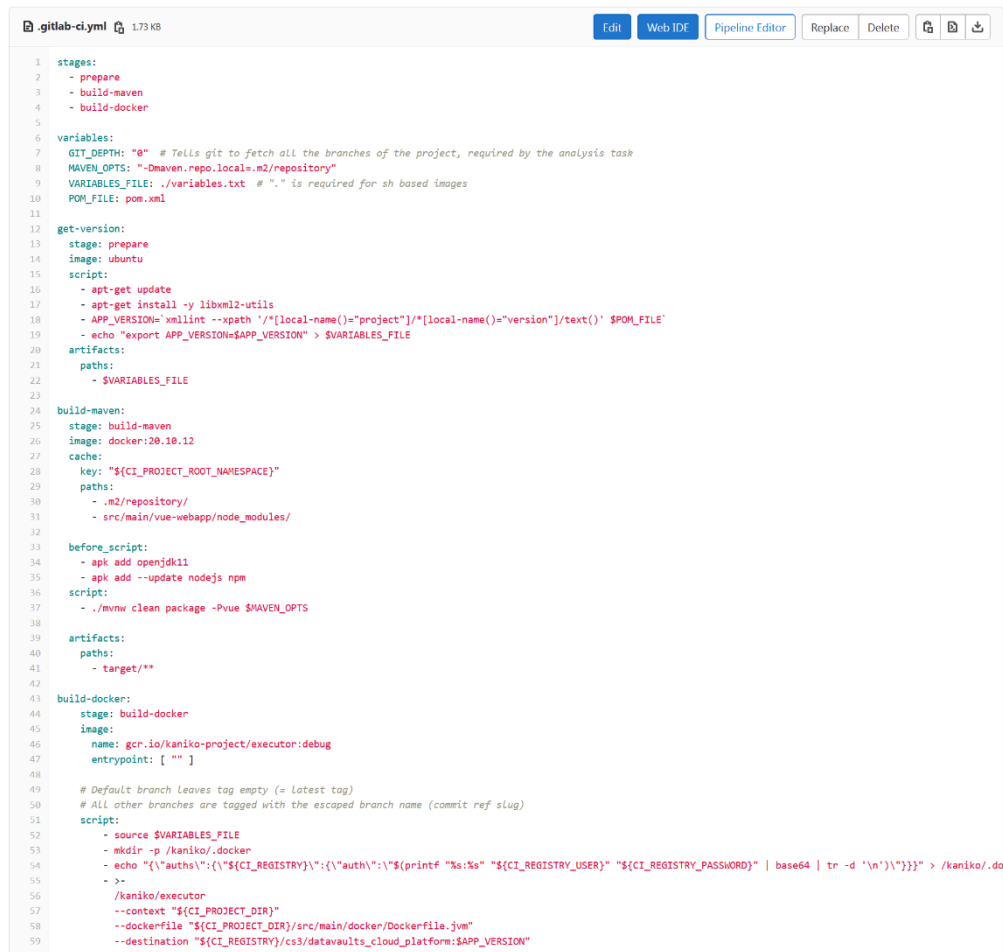
#### 4.1.2 Continuous Integration Flow

GitLab allows the establishment of automated pipelines that manage the Continuous Integration and Continuous Delivery of the whole project. For this reason, DataVaults uses Gitlab for the CI/CD flow, as well as Kubernetes for CI/CD jobs.

GitLab pipelines can be split into multiple stages, and each of them can be further split into jobs, such as Build, Test, Review, Performance, etc. Those stages are defined in a file called



gitlab-ci.yml that handles the configuration of the pipelines and the jobs contained in them. An example of such a file is depicted in Figure 73.



```

1 stages:
2   - prepare
3   - build-maven
4   - build-docker
5
6 variables:
7   GIT_DEPTH: "0" # Tells git to fetch all the branches of the project, required by the analysis task
8   MAVEN_OPTS: "-Dmaven.repo.local=.m2/repository"
9   VARIABLES_FILE: ./variables.txt # "." is required for sh based images
10  POM_FILE: pom.xml
11
12 get-version:
13   stage: prepare
14   image: ubuntu
15   script:
16     - apt-get update
17     - apt-get install -y libxml2-utils
18     - APP_VERSION=$(xmllint --xpath '/*[local-name()="project"]/*[local-name()="version"]/text()' $POM_FILE)
19     - echo "export APP_VERSION=$APP_VERSION" > $VARIABLES_FILE
20  artifacts:
21    paths:
22      - $VARIABLES_FILE
23
24 build-maven:
25   stage: build-maven
26   image: docker:20.10.12
27   cache:
28     key: "${CI_PROJECT_ROOT_NAMESPACE}"
29     paths:
30       - .m2/repository/
31       - src/main/vue-webapp/node_modules/
32
33 before_script:
34   - apk add openjdk11
35   - apk add --update nodejs npm
36   script:
37     - ./mvnw clean package -Pvue $MAVEN_OPTS
38
39 artifacts:
40   paths:
41     - target/**
42
43 build-docker:
44   stage: build-docker
45   image:
46     name: gcr.io/kaniko-project/executor:debug
47     entrypoint: [ "" ]
48
49 # Default branch Leaves tag empty (= latest tag)
50 # All other branches are tagged with the escaped branch name (commit ref slug)
51 script:
52   - source $VARIABLES_FILE
53   - mkdir -p /kaniko/.docker
54   - echo "${auth}" > /kaniko/.docker/config.json
55   - >
56     /kaniko/executor
57     --context "${CI_PROJECT_DIR}"
58     --dockerfile "${CI_PROJECT_DIR}/src/main/docker/Dockerfile.jvm"
59     --destination "${CI_REGISTRY}/cs3/datavaults_cloud_platform:$APP_VERSION"

```

Figure 73 gitlab-ci.yml file

This file handles the CI of the Cloud platform and the stages included in this specific service are three: prepare and build-maven and build-docker. In each stage, the necessary images are used; the use of scripts is necessary, in addition to predefined GitLab variables which are available in every CI/CD pipeline. The first stage handles the preparation of the environment by downloading the necessary libraries and also setting the correct variables for the pipeline. During the second stage the image of the cloud platform is built, utilizing openjdk, nodejs and maven. Finally, the third stage ensures that the docker image is correctly built and uploaded to the container registry of the particular Gitlab repository.

### 4.1.3 Issues Management

Regular reporting of any issues identified, as well as any additional features which need to be developed, is a major aspect of the integration process in a collaborative environment. As such, it is important to the DataVaults Continuous Integration process. To achieve this, we used Gitlab's native issue management functionality. Figure 74 depicts the issue management process in DataVaults.

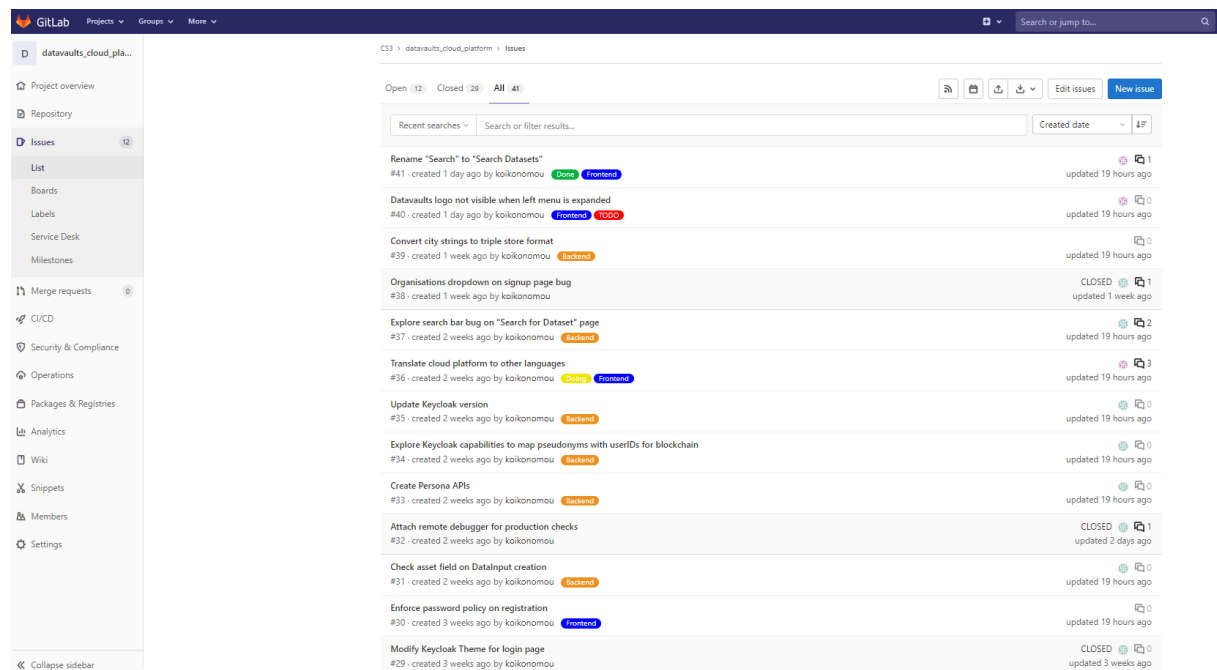


Figure 74: Issue management in DataVaults gitlab

## 4.2 TESTING

As already explained in deliverable D5.5 [5], the verification and validation tests have been organized in several test scenarios grouped by functionality blocks. In addition, one more scenario has been added to validate the creation and management of questionnaires.

These are the final nine test scenarios that have been defined:

**Test scenario 1: USER MANAGEMENT** comprising user creation, login and logout, and user characterization (data owners and data seekers).

**Test scenario 2: DATA COLLECTING/INGESTION** represents the data collection and how it is presented to the user.

**Test scenario 3: DATA COLLECTION & SHARING CONFIGURATION MANAGEMENT.** In this scenario the complexity increases, since it has as preconditions the previous scenarios, to test the creation of a configuration of the data owner to share their data.

**Test scenario 4: DATA TRANSFORMATION AND ENRICHMENT** validates that the data owners have the means to see how their data are being shared and to what extent they can change the conditions to modify the results.

**Test scenario 5: DATA ASSET SHARING EXECUTION** validates the execution of a data sharing. After selecting the data sources, we apply a previously defined configuration, where all those modules could be validated.

**Test scenario 6: DATA ASSETS PURCHASE AND PERSONA GENERATION** validates the simple interaction between Cloud Platform modules and the Personal App. A data seeker can access different data assets to select and purchase them. Persona management is also tested.

**Test scenario 7:** DATA ASSETS PURCHASE FOR INCOMPLETE SHARING CONFIGURATION shows a very complex and important functionality of the whole DATAVAULTS framework: the interaction between the two backbones is validated when there is an open offer over data sharing configuration and is required to be accepted by the data owner.

**Test scenario 8:** CLOUD DATA ANALYTICS by means of SEAS. From the Cloud platform, a data seeker could generate its playground and make the result visible for the Data Seeker.

**Test scenario 9:** QUESTIONNAIRES management from their definition by a data seeker, sending the related notifications to data owners and fulfilment by them gaining points for their data.

Each scenario was defined through a series of tests (test suites) to validate the functionality of the Personal App (for Data Owners) and the Cloud Platform (for Data Seekers).

A test template was designed to specify each test and is presented on Table 1 below:

**Table 1: Test template**

Test Case ID:		Test Designed By:	
Test Priority: (Low/Medium/High)		Test Designed Date:	
Interacting Modules:			
Test Title:		Test Executed By:	
Description:		Test Executed Date:	
Pre-conditions:			
Test Case Writing/Execution Tool			
Test Case Source			
Expected Result			
Actual Result			
Status (Pass/Fail)			
Notes			
Post-conditions:			

Katalon Studio [7] v8.5.2, Standalone Edition (no need of licence) was the framework used to implement the tests and run them.

Note that in the end it was possible to use this tool for all the tests, more suitable for the validation of the two web applications (Personal App and Cloud Platform), instead of using Postman collections, since the unit and integration tests had already been performed by their partners involved, and now it was time for verification and validation.

About 65 tests have been programmed and grouped into test suites (test collections), one test suite per specified scenario.

The implemented project, DataVaults Validation, has been stored in a repository in the Datavaults GitLab (<https://gitlab.com/datavaults/validation-test> ).

Two rounds of testing were scheduled, one running the third week of February and the other the third week of April. Issues were detected and communicated to the technical team for resolution opening issues in the Demobugs project in the Datavaults Gitlab (<https://gitlab.com/datavaults/demobugs/-/issues> )

The results of the first round of testing, were collected in the test templates, which are shown in section 4.2.1; more detailed results are in ANNEX A: TEST CASES SPECIFICATION (*FIRST ROUND*) and in ANNEX B: TEST SUITES RUN (*FIRST ROUND*) . In the same way, the results of the second round of validation are also available in their corresponding section 4.2.2 and in ANNEX C: TEST CASES SPECIFICATION (*SECOND ROUND*) and ANNEX D: TEST SUITES RUN (*SECOND ROUND*). All this information was communicated and made public to all consortium members.

#### 4.2.1 First round of testing

The first round of the validation tests was run the third week of February 2023. This is the summary of the results on Table 2:

**Table 2: Results of the first validation testing (28.02.2023)**

TEST SCENARIO	PASSED	COMMENTS
<b>TS1 Data Owner Mngt</b>	Yes	* Prato demonstrator used
<b>TS1 Data Seeker Mngt</b>	Yes	* Cannot register with the same email. * Deletion of a data seeker not available.
<b>TS2 Data collection-ingestion (owner)</b>	No	* No data retrieved from MIWenergia (monthly)
<b>TS3 Data collection-sharing conf mngt (owner)</b>	No	* Sharing with <i>no price</i> fails * TO BE TESTED: Encrypted/decrypted data
<b>TS4 Data transformation-enrichment (owner)</b>	No	* Bar graphs show wrong "#shared assets" * Bar graphs show "#shared assets" == "#sold assets" * Bar graphs don't show the points gained
<b>TS5 Data asset sharing execution (owner)</b>	Yes	* TO BE TESTED: Encrypted/decrypted data
<b>TS6 Data asset purchase (seeker)</b>	No	* The data seeker see more types of licences that the data owner can select. Is this depending on the data owner's demonstrator or is it a bug? * Dashboard does not reflect the sold assets and gained points. * TO BE TESTED: Compensation operations * TO BE TESTED: Persona generation.
<b>TS7 Data asset purchase-no price (seeker)</b>	No	* Entity not found message when trying to buy an asset without price. * No notifications for the data owner involved.
<b>TS8 Cloud data analytics</b>	Yes	
<b>TS9 Questionnaires</b>	No	* Notifications of available questionnaires don't arrive. * (No notification at all: empty inbox)

The results of the first execution of the validation tests are collected in ANNEX A: TEST CASES SPECIFICATION (*FIRST ROUND*) and ANNEX B: TEST SUITES RUN (*FIRST ROUND*), using the test templates. Apart from the templates, the Annex Section contains detailed and dated steps for all the test scenarios.

#### 4.2.2 Second round of testing

The second round of the validation tests was run the fourth week of April 2023. This is the summary of the results on Table 3:

**Table 3: Results of the second validation testing (26.04.2023)**

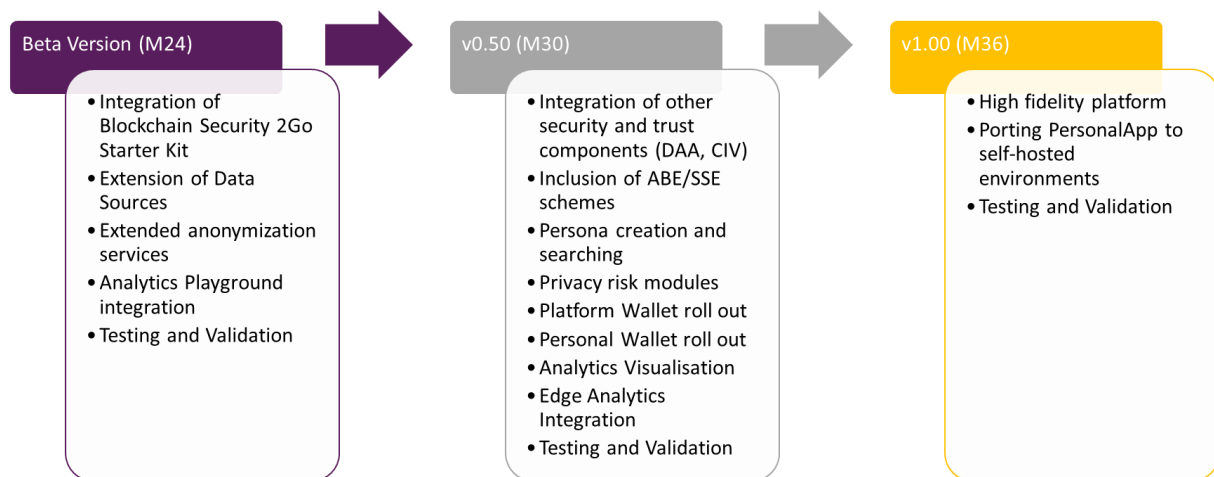
TEST SCENARIO	PASSED	COMMENTS
<b>TS1 Data Owner Mngt</b>	Yes	* External demonstrator used
<b>TS1 Data Seeker Mngt</b>	Yes	
<b>TS2 Data collection-ingestion (owner)</b>	Yes	
<b>TS3 Data collection-sharing conf mngt (owner)</b>	Yes	
<b>TS4 Data transformation-enrichment (owner)</b>	Yes	
<b>TS5 Data asset sharing execution (owner)</b>	Yes	
<b>TS6 Data asset purchase (seeker)</b>	Yes	
<b>TS7 Data asset purchase-no price (seeker)</b>	Yes	
<b>TS8 Cloud data analytics</b>	Yes	
<b>TS9 Questionnaires</b>	Yes	

The results of the second execution of the validation tests are collected in ANNEX C: TEST CASES SPECIFICATION (*SECOND ROUND*) and ANNEX D: TEST SUITES RUN (*SECOND ROUND*), using the test templates. Apart from the templates, the Annex Section contains detailed and dated steps for all the test scenarios.

## 5 RELEASE PLANNING

### 5.1 RELEASE PLANNING

Based on the followed methodology, we followed all the steps for the previous releases and tried not only to check the user stories validity but also to validate the backlog planning, again by using the collaborative spreadsheet of the user stories. All the steps for the respective releases are depicted in Figure 75 below.



**Figure 75: DataVaults Release Planning**

In this version V1.0 of the platform, all planned user stories were delivered to provide a high-fidelity platform. Testing and validation continued to and all issues observed were solved in the best way possible. The final 1.0 release contains all the steps from the previous releases (Alpha, Beta and 0.5).

## 6 CONCLUSIONS

In this document, we presented Version 1.0 of the DataVaults platform. We started first by presenting the status of the DataVaults platform and more specifically the status of each component, regarding their integration, code availability, installation instructions, VM, IP and port of their deployment and their interfaces & Interactions.

All technical partners worked for the improvement and enhancement of the platform services (such as databases, message queues, identity manager, blockchain) and the development and integration of the components for the delivery of an optimized and well-rounded platform for this final release. Improvements compared to the previous versions have been made across various components to fulfill for the User Stories and the needs of the pilots that were created from the use of the platform.

Moreover, the updated screenshots from the usage of the different components of the platform user stories and an overview of the executed plan for the previous releases have been provided. Finally, details regarding the technical assurance of the platform were presented, focusing on the continuous integration and the testing in order to provide a validated and fine-tuned platform till the end of the project.

## 7 ANNEX A: TEST CASES SPECIFICATION (*FIRST ROUND*)

### 7.1 TS1 USER MANAGEMENT

<b>Test Case ID:</b>	TC 1.1.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	New Data Owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Create a new user to sell their data	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	Personal App ( <a href="https://app.datavaults.eu/">https://app.datavaults.eu/</a> )		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.1.1a, TC1.1.1b, TC1.1.1c, TC1.1.1d, TC1.1.1e		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Successful execution of those tests		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	Care with the expiration time of the link sent by the Personal App. These tests are part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Data owner created		

<b>Test Case ID:</b>	TC 1.1.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud Platform Backbone (UBITECH) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	New Data Seeker	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Create a new user to buy data	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	Cloud Platform ( <a href="https://platform.datavaults.eu/">https://platform.datavaults.eu/</a> )		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1:TC1.1.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
<b>Post-conditions:</b>	Data seeker created		



<b>Test Case ID:</b>	TC 1.1.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Wrong/not enough owner's data	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Try to create an owner with wrong data or not enough data.	<b>Test Executed Date:</b>	24.02.2023
<b>Pre-conditions:</b>			
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.1.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Data owner is not created		

<b>Test Case ID:</b>	TC 1.1.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud Platform Backbone (UBITECH) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Wrong/not enough seeker's data	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Try to create a seeker with wrong data or not enough data.	<b>Test Executed Date:</b>	24.02.2023
<b>Pre-conditions:</b>			
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.1.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
<b>Post-conditions:</b>	Data seeker is not created		

<b>Test Case ID:</b>	TC 1.2.1	<b>Test Designed By:</b>	ATOS
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<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Valid data-owner login	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Login successful with an existing data-owner	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data-owner exists in DV platform		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Data-owner logged in		

<b>Test Case ID:</b>	TC 1.2.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud Platform Backbone (UBITECH)		
<b>Test Title:</b>	Valid data-seeker login	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Login successful with an existing data-seeker	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data-seeker exists in DV platform		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.2.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
<b>Post-conditions:</b>	Data-seeker logged in		

Test Case ID:	TC 1.2.3	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5)		
Test Title:	Invalid data-owner login	Test Executed By:	ATOS
Description:	Login failed with a non existing data-owner	Test Executed Date:	20.04.2023
Pre-conditions:	The data-owner does not exist in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.3		
Expected Result	Successful execution.		
Actual Result	Success		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:	Data-owner did not log in		

Test Case ID:	TC 1.2.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH)		
Test Title:	Invalid data-owner login	Test Executed By:	ATOS
Description:	Login failed with a non existing data-seeker	Test Executed Date:	20.04.2023
Pre-conditions:	The data-seeker does not exist in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.4		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data-seeker did not log in		

<b>Test Case ID:</b>	TC 1.3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Change nationality, etc. of data-owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The nationality, etc. of a given data owner are to be modified	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data owner is logged in		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Nationality, etc., have been updated.		

<b>Test Case ID:</b>	TC 1.3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Change nationality, etc. of data-owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The nationality, etc. of a given data owner are to be modified	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data owner is logged in		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Nationality, etc., have been updated.		

<b>Test Case ID:</b>	TC 1.4.1	<b>Test Designed By:</b>	ATOS
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Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5)		
Test Title:	Data-owner logs out	Test Executed By:	ATOS
Description:	Logout successful	Test Executed Date:	20.04.2023
Pre-conditions:	The data-owner is logged in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.4.1		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:	Data-owner logged out		

Test Case ID:	TC 1.4.2	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH)		
Test Title:	Data-seeker logs out	Test Executed By:	ATOS
Description:	Logout successful	Test Executed Date:	20.04.2023
Pre-conditions:	The data-seeker is logged in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.4.2		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data-seeker logged out		

## 7.2 TS2 DATA COLLECTION-INGESTION (OWNER)

<b>Test Case ID:</b>	TC 2.1.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a standard online source (twitter)	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a non-standard online source (MIWenergia)	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from MIWenergia and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Data retrieved from MIWenergia.		

<b>Test Case ID:</b>	TC 2.1.2	<b>Test Designed By:</b>	ATOS
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a given file	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from a file and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.3a, TC2.1.3b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Change the frequency	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter, select an hourly frequency and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	A data-owner logs the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.4a, TC2.1.4b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is updated hourly in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Change the frequency	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter, select an hourly frequency and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.4a, TC2.1.4b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is updated hourly in the data-owner's My Vault.		



<b>Test Case ID:</b>	TC 2.2.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	View the configuration of a standard online source	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Get the data from a non-standard online source (MIWenergia)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data owner is logged in the Personal App. She selects a non-standard online source (MIWenergia).		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Data retrieved from MIWenergia.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	User got the data from the related data source		

<b>Test Case ID:</b>	TC 2.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	View the configuration of an uploaded file	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Get the data from an uploaded file	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data owner is logged in the Personal App. She selects a file previously uploaded		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	User got the data from the related data source		

Test Case ID:	TC 2.2.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Duplicate a data source	Test Executed By:	ATOS
Description:	Duplicate a data source from the		
	MyVault	Test Executed Date:	21.04.2023
Pre-conditions:	A data owner is logged in the Personal App. She goes to her MyVault.		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.4		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just duplicated appears in the data-owner’s MyVault.		

Test Case ID:	TC 2.2.5	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Remove a data source	Test Executed By:	ATOS
Description:	Delete a data source from the MyVault	Test Executed Date:	21.04.2023
Pre-conditions:	A data owner is logged in the Personal App. She goes to her MyVault.		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.5		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just removed does not appear in the data-owner’s MyVault anymore.		

Test Case ID:	TC 2.2.5	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Remove a data source	Test Executed By:	ATOS
Description:	Delete a data source from the		
	MyVault	Test Executed Date:	21.04.2023
Pre-conditions:	A data owner is logged in the Personal App. She goes to her MyVault.		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.5		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just removed does not appear in the data-owner's MyVault anymore.		

Test Case ID:	TC 2.2.7	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Enable a data source	Test Executed By:	ATOS
Description:	Enable a data source previously disabled from the MyVault	Test Executed Date:	21.04.2023
Pre-conditions:	TC 2.2.6		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.6-7		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just enabled will be updated again according to its defined frequency.		

### 7.3 TS3 DATA COLLECTION-SHARING CONF MNGT (OWNER)

<b>Test Case ID:</b>	TC3.0 == TC 2.1.x	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Store data	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (data owner)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 2.2. Data are stored in the Personal Store (MyVault)		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.x		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data owner got the data of the related data sources		

<b>Test Case ID:</b>	TC 3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Search data to be shared	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Select data available to be shared.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner has assets to be shared. TC 2.1.x		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	The data owner selected the data to be shared		

<b>Test Case ID:</b>	TC 3.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN)		
<b>Test Title:</b>	Define anonymization for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared by means of anonymization.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner configured anonymization parameters for the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN)		
<b>Test Title:</b>	Define anonymization for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared by means of anonymization.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner configured anonymization parameters for the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Privacy Metric Dashboard (UNISYSTEMS)		
<b>Test Title:</b>	Define privacy policies for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared using the Privacy Metrics Dashboard (information about the potential risk of personal data exposure)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Is this the same use case that 3.2.4 Define Risk? TO ASK		
<b>Status (Pass/Fail)</b>	--		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mgmt.		
<b>Post-conditions:</b>	User defined the privacy metrics of the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Risk Management Monitor (UNISYSTEMS)		
<b>Test Title:</b>	Define risk for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared and the sharing configurator gets back from the Privacy Metrics Dashboard the information about the potential risk of personal data exposure.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		

<b>Test Case ID:</b>	TC 3.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner defined the potential risk of the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.5	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) ABE (SUITE5)		
<b>Test Title:</b>	Define other information for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared: encryption and other information can be defined.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.5		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The asset is shared with the configuration just defined (using the features of open offer, encryption, persona.)		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner defined other information for the data assets she wants to share		

## 7.4 TS4 DATA TRANSFORMATION-ENRICHMENT (OWNER)

<b>Test Case ID:</b>	TC 4.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Search and select among data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner revises her data assets, datasets and analytics	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1-4.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has selected what she wants among the available data assets.		

<b>Test Case ID:</b>	TC 4.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Generate analytics: enrichment and transformation	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner reviews all the data assets and evaluates if any data transformation is applicable with the analytics generated.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 4.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1-4.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The bar charts and the pie charts show the asset shared/unshared, and sold/unsold. The points gained by month are also shown.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has generated analytics report for her data assets.		



## 7.5 TS5 DATA ASSET SHARING EXECUTION (OWNER)

<b>Test Case ID:</b>	TC 5.1.0 == TC4.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Data Fetcher and Transformation (FOKUS)		
<b>Test Title:</b>	Search and select among data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner revises her data assets, datasets and analytics. She selects one to be shared.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has selected what she wants to share among the available data assets.		

<b>Test Case ID:</b>	TC 5.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with maximum privacy	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner selects to share with maximum privacy, anonymization, etc. (not Persona generation)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success. Used encryption too.		

<b>Test Case ID:</b>	TC 5.2.1	<b>Test Designed By:</b>	ATOS
<b>Status (Pass/Fail)</b>	Pass.		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset with maximum privacy. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Access Policy Engine (UBITECH)		
<b>Test Title:</b>	Share with low privacy	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner selects to share available to all, no anonymization, no encryption and with Persona generation.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset with low privacy. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with customized parameters	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner shares freely, combining all the available techniques to share.	<b>Test Executed Date:</b>	21.04.2023

<b>Test Case ID:</b>	TC 5.2.3	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass.		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset by means of a configuration created by herself. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with a configuration previously saved.	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner shares freely, combining all the available techniques to share. She stores such configuration in order to be used later.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.2.3		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset by means of a configuration previously saved by herself. The result is available from a data seeker account.		

## 7.6 TS6 DATA ASSET PURCHASE (SEEKER)

<b>Test Case ID:</b>	TC 6.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available shared assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the available shared assets.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker gets the available data assets as resulting of her search.		

<b>Test Case ID:</b>	TC 6.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Access Policy Engine (TECNALIA)		
<b>Test Title:</b>	Select data asset with a price	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker selects an asset with a given price.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.2-6.3a		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has chosen an asset with a given price.		

<b>Test Case ID:</b>	TC 6.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data Stream Contract Composer (SUITE5)		
<b>Test Title:</b>	Buy data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker buys an asset with a given price.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.2-6.3a, TC6.2-6.3b, TC6.2-6.3c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	The data owner's dashboard doesn't reflect the asset sold. Operations with compensations. Purchases are shown.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has bought an asset with a given price, it is in her vault, her wallet has been updated. The related data owner of the asset just bought checks her wallet updated also.		

<b>Test Case ID:</b>	TC 6.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	21.04.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Data seeker storage (UBITECH) Persona Generator (ASSENTIAN)		
<b>Test Title:</b>	Generate Persona	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker creates a Persona	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.4a, TC6.4b, TC6.4c		
<b>Expected Result</b>	Successful execution of sharing asset data for Persona, creating Persona and buy and download the related data.		
<b>Actual Result</b>	A Persona has been created, the data seeker has bought it and get the data		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has created a Persona and accessed its information.		

## 7.7 TS7 DATA ASSET PURCHASE-NO PRICE (SEEKER)

<b>Test Case ID:</b>	TC 7.1 == TC 6.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available shared assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the available shared assets.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS7: TC7.1-7.2-7.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker gets the available data assets as resulting of her search.		

<b>Test Case ID:</b>	TC 7.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Access Policy Engine (TECNALIA)		
<b>Test Title:</b>	Select data asset with no price	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker selects an asset with no price.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 7.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS7: TC7.1-7.2-7.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker has chosen an asset no price.		

Test Case ID:	TC 7.3	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data request service resolver (SUITE5)		
Test Title:	Request for a data asset with no price	Test Executed By:	ATOS
Description:	The data seeker requests an asset with no price in order to agree on a price with the data owner.	Test Executed Date:	26.04.2023
Pre-conditions:	TC 7.2		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS7: TC7.1-7.2-7.3		
Expected Result	Successful execution.		
Actual Result	The data owner is notified about it, so the purchase could be completed.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
Post-conditions:	The data seeker has requested a data asset for a price to the data owner, it is in her transactions, her wallet has been updated. The related data owner of the asset just requested checks her inbox with the related notification.		

Test Case ID:	TC 7.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data request service resolver (SUITE5) Personal App (SUITE5) Access Policy Editor (TECNALIA) Risk management Monitor (UNISYSTEMS)		
Test Title:	Complete sharing configuration	Test Executed By:	ATOS
Description:	The data owner has to give a price for sharing the requested asset. The sharing configuration is completed	Test Executed Date:	26.04.2023
Pre-conditions:	TC 7.3		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS7: TC7.4		
Expected Result	Successful execution.		

<b>Test Case ID:</b>	TC 7.4	<b>Test Designed By:</b>	ATOS
<b>Actual Result</b>	The dataowner receives a notification. She can accept or reject the offered price.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker has bought an asset after requesting for a price to the data owner, it is in her vault, her wallet has been updated. The related data owner of the asset just bought checks her inbox and select the asset to see the price just offered.		

## 7.8 TS8 CLOUD DATA ANALYTICS

<b>Test Case ID:</b>	TC 8.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available bought assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the bought assets.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS8: TC8.1-8.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS8 Cloud Data Analytics.		
<b>Post-conditions:</b>	The data seeker gets the data assets bought previously as resulting of her search.		

<b>Test Case ID:</b>	TC 8.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Secure Analytics Play (ATOS)		
<b>Test Title:</b>	Generate analytics playground	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker analyzes a selected bought asset with SEAS tool.	<b>Test Executed Date:</b>	21.04.2023



<b>Test Case ID:</b>	TC 8.2	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	TC 8.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS8: TC8.1-8.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS8 Cloud Data Analytics.		
<b>Post-conditions:</b>	The data seeker accesses SEAS tool for the asset selected.		

## 7.9 TS9 QUESTIONNAIRES

<b>Test Case ID:</b>	TC 9.1a	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Create a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker designs a questionnaire.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.1-shortest, TC9.1-easy, TC9.1a, TC9.1b, TC9.1c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has a new questionnaire to be sent.		

<b>Test Case ID:</b>	TC 9.1b	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Remove a draft questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker deletes a draft questionnaire previously created.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		

<b>Test Case ID:</b>	TC 9.1b	<b>Test Designed By:</b>	ATOS
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.1-shortest, TC9.1-easy, TC9.1a, TC9.1b, TC9.1c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has removed a draft questionnaire.		

<b>Test Case ID:</b>	TC 9.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker shares a questionnaire.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner receives notifications about shared questionnaires.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has shared a questionnaire.		

<b>Test Case ID:</b>	TC 9.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Personal Wallet (SUITE5)		
<b>Test Title:</b>	Fulfill a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Certain data owner is able to fulfill a questionnaire and gain points.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner fulfills the questionnaire. After sending it, she wins the related points.		
<b>Status (Pass/Fail)</b>	Pass		

<b>Test Case ID:</b>	TC 9.3	<b>Test Designed By:</b>	ATOS
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data owner has fulfilled a questionnaire and gained some points.		

<b>Test Case ID:</b>	TC 9.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Review a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner reviews a questionnaire just fulfilled.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.3		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner is able to review her answers in the questionnaires sent.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data owner has reviewed a questionnaire just fulfilled from her inbox.		

## 8 ANNEX B: TEST SUITES RUN (*FIRST* ROUND)

Following a more detailed information on the first validation testing has been included:

### 8.1 TS1 USER MANAGEMENT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS1 User management (Data Owner)</b>	Chrome 110.0.0.0			20/02/2023 13:10	20/02/2023 13:13	3m - 8,492s	PASSED
<b>Test Cases/TS1/TC1.1.1a</b>	Chrome 110.0.0.0	New Data Owner (a): register email address and passwd	1.1.1a	20/02/2023 13:10	20/02/2023 13:10	18,113s	PASSED
<b>Test Cases/TS1/TC1.1.1b</b>	Chrome 110.0.0.0	New Data Owner (b): access email server to get the verification message	1.1.1b	20/02/2023 13:10	20/02/2023 13:10	6,195s	PASSED
<b>Test Cases/TS1/TC1.1.1c-expired</b>	Chrome 110.0.0.0	New Data Owner (c): the verification link expired, and a new one is to be generated.	1.1.1c	20/02/2023 13:10	20/02/2023 13:10	24,290s	PASSED
<b>Test Cases/TS1/TC1.1.1d</b>	Chrome 110.0.0.0	New Data Owner (d): the verification link works and the new data owner accesses DV App.	1.1.1d	20/02/2023 13:10	20/02/2023 13:11	11,342s	PASSED
<b>Test Cases/TS1/TC1.1.1e-expired</b>	Chrome 110.0.0.0	New Data Owner (e): the new data seeker accesses DV App and fulfills some profile features.	1.1.1e	20/02/2023 13:11	20/02/2023 13:12	56,448s	PASSED
<b>Test Cases/TS1/TC1.1.3</b>	Chrome 110.0.0.0	Wrong/not enough owner data	1.1.3	20/02/2023 13:12	20/02/2023 13:12	14,637s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS1/TC1.2.1</b>	Chrome 110.0.0.0	Valid Data Owner login	1.2.1	20/02/2023 13:12	20/02/2023 13:12	10,860s	PASSED
<b>Test Cases/TS1/TC1.2.3</b>	Chrome 110.0.0.0	Invalid data-owner login	1.2.3	20/02/2023 13:12	20/02/2023 13:12	13,230s	PASSED
<b>Test Cases/TS1/TC1.3.1</b>	Chrome 110.0.0.0	Log in, change nationality, etc. of data-owner, log out	1.3.1	20/02/2023 13:12	20/02/2023 13:12	18,609s	PASSED
<b>Test Cases/TS1/TC1.4.1</b>	Chrome 110.0.0.0	Data-owner logout	1.4.1	20/02/2023 13:12	20/02/2023 13:13	11,776s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS1 User management (Data Seeker)</b>	Chrome 110.0.0.0			20/02/2023 21:04	20/02/2023 21:05	1m - 36,268s	PASSED
<b>Test Cases/TS1/TC1.1.2</b>	Chrome 110.0.0.0	New Data Seeker	112	20/02/2023 21:04	20/02/2023 21:04	15,986s	PASSED
<b>Test Cases/TS1/TC1.1.4</b>	Chrome 110.0.0.0	Wrong/not enough seeker data	114	20/02/2023 21:04	20/02/2023 21:04	13,409s	PASSED
<b>Test Cases/TS1/TC1.2.2</b>	Chrome 110.0.0.0	Valid Data Seeker login depending on TC1.1.2	122	20/02/2023 21:04	20/02/2023 21:04	9,161s	PASSED
<b>Test Cases/TS1/TC1.2.4</b>	Chrome 110.0.0.0	Data-seeker login fails with invalid data. Tries login again with the right data.	124	20/02/2023 21:04	20/02/2023 21:05	21,459s	PASSED
<b>Test Cases/TS1/TC1.3.2</b>	Chrome 110.0.0.0	Log in, change avatar of data-seeker, and log out.	132	20/02/2023 21:05	20/02/2023 21:05	19,725s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS1/TC1.4.2</b>	Chrome 110.0.0.0	Data-seeker logout	142	20/02/2023 21:05	20/02/2023 21:05	14,690s	PASSED

## 8.2 TS2 DATA COLLECTION-INGESTION (DATA OWNER)

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS2 Data collection-ingestion (Data Owner)</b>	Chrome 110.0.0.0			21/02/2023 16:08	21/02/2023 16:12	4m - 22,790s	ERROR
<b>Test Cases/TS2/TC2.1.1</b>	Chrome 110.0.0.0	Connect a Twitter data source.	2.1.1	21/02/2023 16:08	21/02/2023 16:08	29,740s	PASSED
<b>Test Cases/TS2/TC2.1.2</b>	Chrome 110.0.0.0	Connect a non-standard online source	2.1.2	21/02/2023 16:08	21/02/2023 16:09	31,531s	PASSED
<b>Test Cases/TS2/TC2.1.3a</b>	Chrome 110.0.0.0	Connect a given file	2.1.3a	21/02/2023 16:09	21/02/2023 16:09	22,061s	PASSED
<b>Test Cases/TS2/TC2.1.3b</b>	Chrome 110.0.0.0	Check the file uploaded	2.1.3b	21/02/2023 16:09	21/02/2023 16:10	14,483s	PASSED
<b>Test Cases/TS2/TC2.1.4a</b>	Chrome 110.0.0.0	Change the frequency. "Only once" frequency cannot be changed.	2.1.4a	21/02/2023 16:10	21/02/2023 16:10	4,605s	ERROR
<b>Test Cases/TS2/TC2.1.4b</b>	Chrome 110.0.0.0	Change the frequency	2.1.4b	21/02/2023 16:10	21/02/2023 16:10	27,647s	PASSED
<b>Test Cases/TS2/TC2.1.4c</b>	Chrome 110.0.0.0	Change the frequency	2.1.4c	21/02/2023 16:10	21/02/2023 16:10	15,971s	FAILED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS2/TC2.2.1</b>	Chrome 110.0.0.0	View the configuration of a standard online source. View the configuration of an uploaded file.	2.2.1-2.2.3	21/02/2023 16:10	21/02/2023 16:11	17,372s	PASSED
<b>Test Cases/TS2/TC2.2.2</b>	Chrome 110.0.0.0	View the configuration of a non-standard online source. (Pending 2.1.2)	2.2.2	21/02/2023 16:11	21/02/2023 16:11	22,851s	PASSED
<b>Test Cases/TS2/TC2.2.3</b>	Chrome 110.0.0.0	View the configuration of an uploaded file.	2.2.3	21/02/2023 16:11	21/02/2023 16:11	16,688s	PASSED
<b>Test Cases/TS2/TC2.2.4</b>	Chrome 110.0.0.0	Duplicate a data source	2.2.4	21/02/2023 16:11	21/02/2023 16:12	23,068s	PASSED
<b>Test Cases/TS2/TC2.2.5</b>	Chrome 110.0.0.0	Remove a data source	2.2.5	21/02/2023 16:12	21/02/2023 16:12	14,646s	PASSED
<b>Test Cases/TS2/TC2.2.6-7</b>	Chrome 110.0.0.0	Disable and enable a data source	2.2.6-7	21/02/2023 16:12	21/02/2023 16:12	18,525s	PASSED

### 8.3 TS3 DATA COLLECTION-SHARING CONF MNGT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt</b>	Chrome 110.0.0.0			22/02/2023 12:03	22/02/2023 12:07	3m - 43,360s	FAILED
<b>Test Cases/TS3/TC3.1</b>	Chrome 110.0.0.0	Search data	31	22/02/2023 12:03	22/02/2023 12:03	19,445s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS3/TC3.2.1a</b>	Chrome 110.0.0.0	Define anonymization for a sharing configuration.	321	22/02/2023 12:03	22/02/2023 12:04	26,748s	PASSED
<b>Test Cases/TS3/TC3.2.1b</b>	Chrome 110.0.0.0	Define anonymization for a sharing configuration (google fit). No data, not to share.	321	22/02/2023 12:04	22/02/2023 12:04	16,927s	PASSED
<b>Test Cases/TS3/TC3.2.2</b>	Chrome 110.0.0.0	Define access policy for a sharing configuration	322	22/02/2023 12:04	22/02/2023 12:04	25,194s	PASSED
<b>Test Cases/TS3/TC3.2.3</b>	Chrome 110.0.0.0	Define privacy policies for a sharing configuration	323	22/02/2023 12:04	22/02/2023 12:05	21,486s	PASSED
<b>Test Cases/TS3/TC3.2.4</b>	Chrome 110.0.0.0	Define risk for a sharing configuration	324	22/02/2023 12:05	22/02/2023 12:06	55,381s	FAILED
<b>Test Cases/TS3/TC3.2.5</b>	Chrome 110.0.0.0	A complete definition of a sharing configuration.	325	22/02/2023 12:06	22/02/2023 12:07	55,251s	FAILED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt</b>	Chrome 110.0.0.0			22/02/2023 17:17	22/02/2023 17:22	4m - 52,834s	FAILED
<b>Test Cases/TS3/TC3.1</b>	Chrome 110.0.0.0	Search data	31	22/02/2023 17:17	22/02/2023 17:18	18,800s	PASSED
<b>Test Cases/TS3/TC3.2.1a</b>	Chrome 110.0.0.0	Define anonymization for a sharing configuration.	321	22/02/2023 17:18	22/02/2023 17:18	26,411s	PASSED
<b>Test Cases/TS3/TC3.2.1b</b>	Chrome 110.0.0.0	Define anonymization for a sharing configuration (google fit). No data, not to share.	321	22/02/2023 17:18	22/02/2023 17:18	19,771s	PASSED



Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS3/TC3.2.2</b>	Chrome 110.0.0.0	Define access policy for a sharing configuration	322	22/02/2023 17:18	22/02/2023 17:19	24,756s	PASSED
<b>Test Cases/TS3/TC3.2.3</b>	Chrome 110.0.0.0	Define privacy policies for a sharing configuration	323	22/02/2023 17:19	22/02/2023 17:20	54,870s	FAILED
<b>Test Cases/TS3/TC3.2.4</b>	Chrome 110.0.0.0	Define risk for a sharing configuration	324	22/02/2023 17:20	22/02/2023 17:21	1m - 12,934s	FAILED
<b>Test Cases/TS3/TC3.2.5a</b>	Chrome 110.0.0.0	A complete definition of a sharing configuration.	325	22/02/2023 17:21	22/02/2023 17:22	56,414s	FAILED
<b>Test Cases/TS3/TC3.2.5b</b>	Chrome 110.0.0.0	A complete definition of a sharing configuration. Check.	325	22/02/2023 17:22	22/02/2023 17:22	15,664s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 2</b>	Chrome 110.0.0.0			22/02/2023 18:11	22/02/2023 18:11	28,889s	PASSED
<b>Test Cases/TS3/TC3.2.3</b>	Chrome 110.0.0.0	Define privacy policies for a sharing configuration	323	22/02/2023 18:11	22/02/2023 18:11	25,721s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 3</b>	Chrome 110.0.0.0			22/02/2023 18:28	22/02/2023 18:29	49,684s	PASSED
<b>Test Cases/TS3/TC3.2.4</b>	Chrome 110.0.0.0	Define risk for a sharing configuration	324	22/02/2023 18:28	22/02/2023 18:29	47,207s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 4</b>	Chrome 110.0.0.0			22/02/2023 18:38	22/02/2023 18:39	54,907s	PASSED
<b>Test Cases/TS3/TC3.2.5a</b>	Chrome 110.0.0.0	A complete definition of a sharing configuration.	325	22/02/2023 18:38	22/02/2023 18:39	36,808s	PASSED
<b>Test Cases/TS3/TC3.2.5b</b>	Chrome 110.0.0.0	A complete definition of a sharing configuration. Check.	325	22/02/2023 18:39	22/02/2023 18:39	15,180s	PASSED

#### 8.4 TS4 DATA TRANSFORMATION-ENRICHMENT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS4 Data transformation-enrichment</b>	Chrome 110.0.0.0			23/02/2023 9:04	23/02/2023 9:04	22,729s	PASSED
<b>Test Cases/TS4/TC4.1-4.2</b>	Chrome 110.0.0.0	Search and select among data assets. Generate analytics.	4.1-4.2	23/02/2023 9:04	23/02/2023 9:04	20,310s	PASSED

## 8.5 TS5 DATA ASSET SHARING EXECUTION

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS5 Data asset sharing execution</b>	Chrome 110.0.0.0			23/02/2023 11:40	23/02/2023 11:44	3m - 50,237s	PASSED
<b>Test Cases/TS5/TC5.2.1</b>	Chrome 110.0.0.0	Share with maximum privacy	521	23/02/2023 11:40	23/02/2023 11:40	41,891s	PASSED
<b>Test Cases/TS5/TC5.2.2</b>	Chrome 110.0.0.0	Share with low privacy	522	23/02/2023 11:40	23/02/2023 11:41	28,673s	PASSED
<b>Test Cases/TS5/TC5.2.3a</b>	Chrome 110.0.0.0	Share with customised parameters. Persona.	523	23/02/2023 11:41	23/02/2023 11:41	33,040s	PASSED
<b>Test Cases/TS5/TC5.2.3b</b>	Chrome 110.0.0.0	Share with customised parameters. No persona.	523	23/02/2023 11:41	23/02/2023 11:42	31,946s	PASSED
<b>Test Cases/TS5/TC5.2.4</b>	Chrome 110.0.0.0	Share with a conf previously saved	524	23/02/2023 11:42	23/02/2023 11:42	21,348s	PASSED
<b>Test Cases/TS5/TC5.3a</b>	Chrome 110.0.0.0	Remove a data asset: consequences if it was shared previously. a) Create the data asset.	53	23/02/2023 11:42	23/02/2023 11:43	21,800s	PASSED
<b>Test Cases/TS5/TC5.3b</b>	Chrome 110.0.0.0	Remove a data asset: consequences if it was shared previously. b) Share the data asset.	53	23/02/2023 11:43	23/02/2023 11:43	29,211s	PASSED
<b>Test Cases/TS5/TC5.3c</b>	Chrome 110.0.0.0	Remove a data asset: consequences if it was shared previously. c) Try to remove the data asset.		23/02/2023 11:43	23/02/2023 11:44	19,019s	PASSED

## 8.6 TS6 DATA ASSET PURCHASE-PERSONA GENERATION (DATA SEEKER)

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS6 Data asset purchase-persona generation (Data Seeker) - NEW</b>	Chrome 110.0.0.0			24/02/2023 9:51	24/02/2023 9:52	1m - 22,116s	PASSED
<b>Test Cases/TS6/TC6.1NEW</b>	Chrome 110.0.0.0	Search among available shared assets		24/02/2023 9:51	24/02/2023 9:51	36,168s	PASSED
<b>Test Cases/TS6/TC6.2-6.3bNEW</b>	Chrome 110.0.0.0	Check the MyVault after a purchase.		24/02/2023 9:51	24/02/2023 9:52	24,562s	PASSED
<b>Test Cases/TS6/TC6.2-6.3cNEW</b>	Chrome 110.0.0.0	The related Data Owner has gained points.		24/02/2023 9:52	24/02/2023 9:52	19,147s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS6 Data asset purchase-persona generation (Data Seeker) - NEW - 2</b>	Chrome 110.0.0.0			24/02/2023 12:41	24/02/2023 12:41	32,957s	PASSED
<b>Test Cases/TS6/TC6.2-6.3aNEW</b>	Chrome 110.0.0.0	Select data asset with a price. Buy data asset. Once the asset was bought, it disappears from the available data asset list.		24/02/2023 12:41	24/02/2023 12:41	29,948s	PASSED

## 8.7 TS7 DATA ASSET PURCHASE-INCOMPLETE SHARING CONF

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS7 Data asset purchase-incomplete sharing conf - 0</b>	Chrome 110.0.0.0			27/02/2023 9:58	27/02/2023 9:59	43,086s	PASSED
<b>Test Cases/TS7/TC7.0a</b>	Chrome 110.0.0.0	Create an asset without price		27/02/2023 9:58	27/02/2023 9:58	20,306s	PASSED
<b>Test Cases/TS7/TC7.0b</b>	Chrome 110.0.0.0	Share asset without price.		27/02/2023 9:58	27/02/2023 9:59	20,928s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS7 Data asset purchase-incomplete sharing conf - Fail</b>	Chrome 110.0.0.0			27/02/2023 14:23	27/02/2023 14:24	48,695s	PASSED
<b>Test Cases/TS7/TC7.1-7.2-7.3</b>	Chrome 110.0.0.0	Search among available shared assets. Select data asset with no price. Request for a data asset with no price		27/02/2023 14:23	27/02/2023 14:23	45,915s	PASSED

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## 8.8 TS8 CLOUD DATA ANALYTICS

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Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS8 Cloud data analytics</b>	Chrome 110.0.0.0			27/02/2023 14:53	27/02/2023 14:54	35,156s	PASSED
<b>Test Cases/TS8/TC8.1-8.2 NEW</b>	Chrome 110.0.0.0	Search among available bought assets. Generate analytics playground		27/02/2023 14:53	27/02/2023 14:54	33,094s	PASSED

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## 8.9 TS9 QUESTIONNAIRES

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Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS9 Questionnaires - 1</b>	Chrome 110.0.0.0			28/02/2023 9:13	28/02/2023 9:13	37,993s	PASSED
<b>Test Cases/TS9/TC9.1b</b>	Chrome 110.0.0.0	Remove a draft questionnaire	9.1b	28/02/2023 9:13	28/02/2023 9:13	35,029s	PASSED

## 9 ANNEX C: TEST CASES SPECIFICATION (*SECOND ROUND*)

### 9.1 TS1 USER MANAGEMENT

<b>Test Case ID:</b>	TC 1.1.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	New Data Owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Create a new user to sell their data	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	Personal App ( <a href="https://app.datavaults.eu/">https://app.datavaults.eu/</a> )		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.1.1a, TC1.1.1b, TC1.1.1c, TC1.1.1d, TC1.1.1e		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Successful execution of those tests		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	Care with the expiration time of the link sent by the Personal App. These tests are part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Data owner created		

<b>Test Case ID:</b>	TC 1.1.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud Platform Backbone (UBITECH) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	New Data Seeker	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Create a new user to buy data	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	Cloud Platform ( <a href="https://platform.datavaults.eu/">https://platform.datavaults.eu/</a> )		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1:TC1.1.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		

Post-conditions:		Data seeker created	
Test Case ID:	TC 1.1.3	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	Low	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
Test Title:	Wrong/not enough owner’s data	Test Executed By:	ATOS
Description:	Try to create an owner with wrong data or not enough data.	Test Executed Date:	24.02.2023
Pre-conditions:			
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.1.3		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:		Data owner is not created	

Test Case ID:	TC 1.1.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	Low	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH) Trusted DLT Engine (UBITECH)		
Test Title:	Wrong/not enough seeker’s data	Test Executed By:	ATOS
Description:	Try to create a seeker with wrong data or not enough data.	Test Executed Date:	24.02.2023
Pre-conditions:			
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.1.4		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data seeker is not created		



Test Case ID:	TC 1.2.1	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5)		
Test Title:	Valid data-owner login	Test Executed By:	ATOS
Description:	Login successful with an existing data-owner	Test Executed Date:	20.04.2023
Pre-conditions:			
The data-owner exists in DV platform			
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.1		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:	Data-owner logged in		

Test Case ID:	TC 1.2.2	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH)		
Test Title:	Valid data-seeker login	Test Executed By:	ATOS
Description:	Login successful with an existing data-seeker	Test Executed Date:	20.04.2023
Pre-conditions:	The data-seeker exists in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.2		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data-seeker logged in		

Test Case ID:	TC 1.2.3	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5)		
Test Title:	Invalid data-owner login	Test Executed By:	ATOS
Description:	Login failed with a non existing data-owner	Test Executed Date:	20.04.2023
Pre-conditions:	The data-owner does not exist in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.3		
Expected Result	Successful execution.		
Actual Result	Success		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:	Data-owner did not log in		

Test Case ID:	TC 1.2.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH)		
Test Title:	Invalid data-owner login	Test Executed By:	ATOS
Description:	Login failed with a non existing data-seeker	Test Executed Date:	20.04.2023
Pre-conditions:	The data-seeker does not exist in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.2.4		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data-seeker did not log in		

<b>Test Case ID:</b>	TC 1.3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Change nationality, etc. of data-owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The nationality, etc. of a given data owner are to be modified	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data owner is logged in		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Nationality, etc., have been updated.		

<b>Test Case ID:</b>	TC 1.3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Personal Wallet (ATOS) Trusted DLT Engine (UBITECH)		
<b>Test Title:</b>	Change nationality, etc. of data-owner	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The nationality, etc. of a given data owner are to be modified	<b>Test Executed Date:</b>	20.04.2023
<b>Pre-conditions:</b>	The data owner is logged in		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS1: TC1.3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
<b>Post-conditions:</b>	Nationality, etc., have been updated.		

<b>Test Case ID:</b>	TC 1.4.1	<b>Test Designed By:</b>	ATOS
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Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Personal App Backbone (SUITE5)		
Test Title:	Data-owner logs out	Test Executed By:	ATOS
Description:	Logout successful	Test Executed Date:	20.04.2023
Pre-conditions:	The data-owner is logged in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.4.1		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Owner).		
Post-conditions:	Data-owner logged out		

Test Case ID:	TC 1.4.2	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud Platform Backbone (UBITECH)		
Test Title:	Data-seeker logs out	Test Executed By:	ATOS
Description:	Logout successful	Test Executed Date:	20.04.2023
Pre-conditions:	The data-seeker is logged in DV platform		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS1: TC1.4.2		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS1 User Management (Data Seeker).		
Post-conditions:	Data-seeker logged out		

## 9.2 TS2 DATA COLLECTION-INGESTION (OWNER)

<b>Test Case ID:</b>	TC 2.1.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a standard online source (twitter)	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a non-standard online source (MIWenergia)	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from MIWenergia and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Data retrieved from MIWenergia.		

<b>Test Case ID:</b>	TC 2.1.2	<b>Test Designed By:</b>	ATOS
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Connect a given file	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from a file and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs in the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.3a, TC2.1.3b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is available in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Change the frequency	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter, select an hourly frequency and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	A data-owner logs the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.4a, TC2.1.4b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is updated hourly in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.1.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	Low	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Change the frequency	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Configure a data collection from twitter, select an hourly frequency and transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (My Vault)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner logs the Personal App		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.4a, TC2.1.4b		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data collection from the data source just defined is updated hourly in the data-owner's My Vault.		

<b>Test Case ID:</b>	TC 2.2.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	View the configuration of a standard online source	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Get the data from a non-standard online source (MIWenergia)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data owner is logged in the Personal App. She selects a non-standard online source (MIWenergia).		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Data retrieved from MIWenergia.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	User got the data from the related data source		

<b>Test Case ID:</b>	TC 2.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	View the configuration of an uploaded file	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Get the data from an uploaded file	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data owner is logged in the Personal App. She selects a file previously uploaded		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	User got the data from the related data source		



Test Case ID:	TC 2.2.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Duplicate a data source	Test Executed By:	ATOS
Description:	Duplicate a data source from the		
	MyVault	Test Executed Date:	21.04.2023
Pre-conditions:	A data owner is logged in the Personal App. She goes to her MyVault.		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.4		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just duplicated appears in the data-owner’s MyVault.		

Test Case ID:	TC 2.2.5	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Data Fetcher &Transformation (FOKUS)		
Test Title:	Remove a data source	Test Executed By:	ATOS
Description:	Delete a data source from the MyVault		
		Test Executed Date:	21.04.2023
Pre-conditions:	A data owner is logged in the Personal App. She goes to her MyVault.		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS2: TC2.2.5		
Expected Result	Successful execution.		
Actual Result	Success.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
Post-conditions:	The data source just removed does not appear in the data-owner’s MyVault anymore.		

<b>Test Case ID:</b>	TC 2.2.5	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	Remove a data source	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Delete a data source from the MyVault	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data owner is logged in the Personal App. She goes to her MyVault.		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.5		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data source just removed does not appear in the data-owner's MyVault anymore.		

<b>Test Case ID:</b>	TC 2.2.7	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS)		
<b>Test Title:</b>	Enable a data source	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Enable a data source previously disabled from the MyVault	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 2.2.6		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.2.6-7		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data source just enabled will be updated again according to its defined frequency.		

### 9.3 TS3 DATA COLLECTION-SHARING CONF MNGT (OWNER)

<b>Test Case ID:</b>	TC3.0 == TC 2.1.x	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Data Fetcher & Transformation (FOKUS) Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Store data	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Transform the data in the DataVaults schema and store them in the Personal Asset Store of the user (data owner)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 2.2. Data are stored in the Personal Store (MyVault)		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS2: TC2.1.x		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS2 Data collection-ingestion (Data Owner).		
<b>Post-conditions:</b>	The data owner got the data of the related data sources		

<b>Test Case ID:</b>	TC 3.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Search data to be shared	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Select data available to be shared.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	A data-owner has assets to be shared. TC 2.1.x		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	The data owner selected the data to be shared		

<b>Test Case ID:</b>	TC 3.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN)		
<b>Test Title:</b>	Define anonymization for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared by means of anonymization.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner configured anonymization parameters for the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN)		
<b>Test Title:</b>	Define anonymization for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared by means of anonymization.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mngt.		
<b>Post-conditions:</b>	Data owner configured anonymization parameters for the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Privacy Metric Dashboard (UNISYSTEMS)		
<b>Test Title:</b>	Define privacy policies for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared using the Privacy Metrics Dashboard (information about the potential risk of personal data exposure)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Is this the same use case that 3.2.4 Define Risk? TO ASK		
<b>Status (Pass/Fail)</b>	--		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mgmt.		
<b>Post-conditions:</b>	User defined the privacy metrics of the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Risk Management Monitor (UNISYSTEMS)		
<b>Test Title:</b>	Define risk for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared and the sharing configurator gets back from the Privacy Metrics Dashboard the information about the potential risk of personal data exposure.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		

<b>Test Case ID:</b>	TC 3.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mgmt.		
<b>Post-conditions:</b>	Data owner defined the potential risk of the data assets she wants to share		

<b>Test Case ID:</b>	TC 3.2.5	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) ABE (SUITE5)		
<b>Test Title:</b>	Define other information for a sharing configuration	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner specifies the way of the data assets are to be shared: encryption and other information can be defined.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 3.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS3: TC3.2.5		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The asset is shared with the configuration just defined (using the features of open offer, encryption, persona.)		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS3 Data sharing conf mgmt.		
<b>Post-conditions:</b>	Data owner defined other information for the data assets she wants to share		

#### 9.4 TS4 DATA TRANSFORMATION-ENRICHMENT (OWNER)

<b>Test Case ID:</b>	TC 4.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Search and select among data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner revises her data assets, datasets and analytics	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1-4.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has selected what she wants among the available data assets.		

<b>Test Case ID:</b>	TC 4.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5)		
<b>Test Title:</b>	Generate analytics: enrichment and transformation	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner reviews all the data assets and evaluates if any data transformation is applicable with the analytics generated.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 4.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1-4.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The bar charts and the pie charts show the asset shared/unshared, and sold/unsold. The points gained by month are also shown.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has generated analytics report for her data assets.		

## 9.5 TS5 DATA ASSET SHARING EXECUTION (OWNER)

<b>Test Case ID:</b>	TC 5.1.0 == TC4.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Data Fetcher and Transformation (FOKUS)		
<b>Test Title:</b>	Search and select among data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner revises her data assets, datasets and analytics. She selects one to be shared.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS4: TC4.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS4 Data transformation-enrichment.		
<b>Post-conditions:</b>	Data owner has selected what she wants to share among the available data assets.		

<b>Test Case ID:</b>	TC 5.2.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with maximum privacy	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner selects to share with maximum privacy, anonymization, etc. (not Persona generation)	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success. Used encryption too.		



<b>Test Case ID:</b>	TC 5.2.1	<b>Test Designed By:</b>	ATOS
<b>Status (Pass/Fail)</b>	Pass.		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset with maximum privacy. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Access Policy Engine (UBITECH)		
<b>Test Title:</b>	Share with low privacy	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner selects to share available to all, no anonymization, no encryption and with Persona generation.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset with low privacy. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with customized parameters	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner shares freely, combining all the available techniques to share.	<b>Test Executed Date:</b>	21.04.2023

<b>Test Case ID:</b>	TC 5.2.3	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	TC 5.1.0		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success.		
<b>Status (Pass/Fail)</b>	Pass.		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset by means of a configuration created by herself. The result is available from a data seeker account.		

<b>Test Case ID:</b>	TC 5.2.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Personal App Backbone (SUITE5) Sharing Configuration (ASSENTIAN) Anonymizer (ASSENTIAN) Access Policy Engine (TECNALIA) Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share with a configuration previously saved.	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner shares freely, combining all the available techniques to share. She stores such configuration in order to be used later.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 5.2.3		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS5: TC5.2.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS5 Data asset sharing execution.		
<b>Post-conditions:</b>	Data owner has shared a data asset by means of a configuration previously saved by herself. The result is available from a data seeker account.		

## 9.6 TS6 DATA ASSET PURCHASE (SEEKER)

<b>Test Case ID:</b>	TC 6.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available shared assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the available shared assets.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.1		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker gets the available data assets as resulting of her search.		

<b>Test Case ID:</b>	TC 6.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Access Policy Engine (TECNALIA)		
<b>Test Title:</b>	Select data asset with a price	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker selects an asset with a given price.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.2-6.3a		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has chosen an asset with a given price.		

<b>Test Case ID:</b>	TC 6.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data Stream Contract Composer (SUITE5)		
<b>Test Title:</b>	Buy data assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker buys an asset with a given price.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.2-6.3a, TC6.2-6.3b, TC6.2-6.3c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	The data owner's dashboard doesn't reflect the asset sold. Operations with compensations. Purchases are shown.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has bought an asset with a given price, it is in her vault, her wallet has been updated. The related data owner of the asset just bought checks her wallet updated also.		

<b>Test Case ID:</b>	TC 6.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority:</b> (Low/Medium/High)	High	<b>Test Designed Date:</b>	21.04.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Data seeker storage (UBITECH) Persona Generator (ASSENTIAN)		
<b>Test Title:</b>	Generate Persona	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker creates a Persona	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 6.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS6: TC6.4a, TC6.4b, TC6.4c		
<b>Expected Result</b>	Successful execution of sharing asset data for Persona, creating Persona and buy and download the related data.		
<b>Actual Result</b>	A Persona has been created, the data seeker has bought it and get the data		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS6 Data asset purchase-persona generation (Data Seeker).		
<b>Post-conditions:</b>	The data seeker has created a Persona and accessed its information.		

## 9.7 TS7 DATA ASSET PURCHASE-NO PRICE (SEEKER)

<b>Test Case ID:</b>	TC 7.1 == TC 6.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available shared assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the available shared assets.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS7: TC7.1-7.2-7.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker gets the available data assets as resulting of her search.		

<b>Test Case ID:</b>	TC 7.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Query builder (FOKUS) Access Policy Engine (TECNALIA)		
<b>Test Title:</b>	Select data asset with no price	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker selects an asset with no price.	<b>Test Executed Date:</b>	26.04.2023
<b>Pre-conditions:</b>	TC 7.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS7: TC7.1-7.2-7.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker has chosen an asset no price.		

Test Case ID:	TC 7.3	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data request service resolver (SUITE5)		
Test Title:	Request for a data asset with no price	Test Executed By:	ATOS
Description:	The data seeker requests an asset with no price in order to agree on a price with the data owner.	Test Executed Date:	26.04.2023
Pre-conditions:	TC 7.2		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS7: TC7.1-7.2-7.3		
Expected Result	Successful execution.		
Actual Result	The data owner is notified about it, so the purchase could be completed.		
Status (Pass/Fail)	Pass		
Notes	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
Post-conditions:	The data seeker has requested a data asset for a price to the data owner, it is in her transactions, her wallet has been updated. The related data owner of the asset just requested checks her inbox with the related notification.		

Test Case ID:	TC 7.4	Test Designed By:	ATOS
Test Priority: (Low/Medium/High)	High	Test Designed Date:	31.01.2023
Interacting Modules:	Cloud platform Backbone (UBITECH) Personal wallet (ATOS) Data request service resolver (SUITE5) Personal App (SUITE5) Access Policy Editor (TECNALIA) Risk management Monitor (UNISYSTEMS)		
Test Title:	Complete sharing configuration	Test Executed By:	ATOS
Description:	The data owner has to give a price for sharing the requested asset. The sharing configuration is completed	Test Executed Date:	26.04.2023
Pre-conditions:	TC 7.3		
Test Case Writing/Execution Tool	Katalon Studio, v. 8.5.2, Standalone Edition		
Test Case Source	Test Cases/TS7: TC7.4		
Expected Result	Successful execution.		

<b>Test Case ID:</b>	TC 7.4	<b>Test Designed By:</b>	ATOS
<b>Actual Result</b>	The dataowner receives a notification. She can accept or reject the offered price.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS7 Data asset purchase-incomplete sharing conf.		
<b>Post-conditions:</b>	The data seeker has bought an asset after requesting for a price to the data owner, it is in her vault, her wallet has been updated. The related data owner of the asset just bought checks her inbox and select the asset to see the price just offered.		

## 9.8 TS8 CLOUD DATA ANALYTICS

<b>Test Case ID:</b>	TC 8.1	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Data seeker storage (UBITECH)		
<b>Test Title:</b>	Search among available bought assets	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker makes a search of assets she wants among the bought assets.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS8: TC8.1-8.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS8 Cloud Data Analytics.		
<b>Post-conditions:</b>	The data seeker gets the data assets bought previously as resulting of her search.		

<b>Test Case ID:</b>	TC 8.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Secure Analytics Play (ATOS)		
<b>Test Title:</b>	Generate analytics playground	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker analyzes a selected bought asset with SEAS tool.	<b>Test Executed Date:</b>	21.04.2023

<b>Test Case ID:</b>	TC 8.2	<b>Test Designed By:</b>	ATOS
<b>Pre-conditions:</b>	TC 8.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS8: TC8.1-8.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS8 Cloud Data Analytics.		
<b>Post-conditions:</b>	The data seeker accesses SEAS tool for the asset selected.		

## 9.9 TS9 QUESTIONNAIRES

<b>Test Case ID:</b>	TC 9.1a	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Create a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker designs a questionnaire.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.1-shortest, TC9.1-easy, TC9.1a, TC9.1b, TC9.1c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has a new questionnaire to be sent.		

<b>Test Case ID:</b>	TC 9.1b	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Remove a draft questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker deletes a draft questionnaire previously created.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 1.2.2		



<b>Test Case ID:</b>	TC 9.1b	<b>Test Designed By:</b>	ATOS
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.1-shortest, TC9.1-easy, TC9.1a, TC9.1b, TC9.1c		
<b>Expected Result</b>	Successful execution of those tests in that order.		
<b>Actual Result</b>	Success		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	These tests are part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has removed a draft questionnaire.		

<b>Test Case ID:</b>	TC 9.2	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Share a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data seeker shares a questionnaire.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.1		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.2		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner receives notifications about shared questionnaires.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data seeker has shared a questionnaire.		

<b>Test Case ID:</b>	TC 9.3	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH) Personal Wallet (SUITE5)		
<b>Test Title:</b>	Fulfill a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	Certain data owner is able to fulfill a questionnaire and gain points.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.2		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.3		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner fulfills the questionnaire. After sending it, she wins the related points.		
<b>Status (Pass/Fail)</b>	Pass		

<b>Test Case ID:</b>	TC 9.3	<b>Test Designed By:</b>	ATOS
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data owner has fulfilled a questionnaire and gained some points.		

<b>Test Case ID:</b>	TC 9.4	<b>Test Designed By:</b>	ATOS
<b>Test Priority: (Low/Medium/High)</b>	High	<b>Test Designed Date:</b>	31.01.2023
<b>Interacting Modules:</b>	Cloud platform Backbone (UBITECH)		
<b>Test Title:</b>	Review a questionnaire	<b>Test Executed By:</b>	ATOS
<b>Description:</b>	The data owner reviews a questionnaire just fulfilled.	<b>Test Executed Date:</b>	21.04.2023
<b>Pre-conditions:</b>	TC 9.3		
<b>Test Case Writing/Execution Tool</b>	Katalon Studio, v. 8.5.2, Standalone Edition		
<b>Test Case Source</b>	Test Cases/TS9: TC9.4		
<b>Expected Result</b>	Successful execution.		
<b>Actual Result</b>	The data owner is able to review her answers in the questionnaires sent.		
<b>Status (Pass/Fail)</b>	Pass		
<b>Notes</b>	This test is part of the test suite Datavaults Validation/Test Suites/TS9 Questionnaires.		
<b>Post-conditions:</b>	The data owner has reviewed a questionnaire just fulfilled from her inbox.		

## 10 ANNEX D: TEST SUITES RUN (*SECOND* ROUND)

More detailed information on the second validation testing is included in the following pages:

### 10.1 TS1 USER MANAGEMENT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS1 User management (DataOwner)</b>	Chrome 112.0.0.0			20/04/2023 13:31	20/04/2023 13:34	2m - 34,170s	PASSED
<b>Test Cases/TS1/TC1.1.1a</b>	Chrome 112.0.0.0	New Data Owner (a): register email address and passwd	1.1.1a	20/04/2023 13:31	20/04/2023 13:31	13,908s	PASSED
<b>Test Cases/TS1/TC1.1.1b</b>	Chrome 112.0.0.0	New Data Owner (b): access email server to get the verification message	1.1.1b	20/04/2023 13:31	20/04/2023 13:31	7,244s	PASSED
<b>Test Cases/TS1/TC1.1.1c-expired</b>	Chrome 112.0.0.0	New Data Owner (c): the verification link expired, and a new one is to be generated.	1.1.1c	20/04/2023 13:31	20/04/2023 13:32	24,439s	PASSED
<b>Test Cases/TS1/TC1.1.1d</b>	Chrome 112.0.0.0	New Data Owner (d): the verification link works and the new data owner accesses DV App.	1.1.1d	20/04/2023 13:32	20/04/2023 13:32	10,037s	PASSED
<b>Test Cases/TS1/TC1.1.1e-expired</b>	Chrome 112.0.0.0	New Data Owner (e): the new data seeker accesses DV App and fulfills some profile features.	1.1.1e	20/04/2023 13:32	20/04/2023 13:32	24,873s	PASSED
<b>Test Cases/TS1/TC1.1.3</b>	Chrome 112.0.0.0	Wrong/not enough owner data	1.1.3	20/04/2023 13:32	20/04/2023 13:33	14,147s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS1/TC1.2.1</b>	Chrome 112.0.0.0	Valid Data Owner login	1.2.1	20/04/2023 13:33	20/04/2023 13:33	10,911s	PASSED
<b>Test Cases/TS1/TC1.2.3</b>	Chrome 112.0.0.0	Invalid data-owner login	1.2.3	20/04/2023 13:33	20/04/2023 13:33	13,302s	PASSED
<b>Test Cases/TS1/TC1.3.1</b>	Chrome 112.0.0.0	Log in, change nationality, etc. of data-owner, log out	1.3.1	20/04/2023 13:33	20/04/2023 13:33	19,207s	PASSED
<b>Test Cases/TS1/TC1.4.1</b>	Chrome 112.0.0.0	Data-owner logout	1.4.1	20/04/2023 13:33	20/04/2023 13:34	12,640s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS1 User management (DataSeeker)</b>	Chrome 112.0.0.0			20/04/2023 12:22	20/04/2023 12:24	2m - 5,709s	PASSED
<b>Test Cases/TS1/TC1.1.2</b>	Chrome 112.0.0.0	New Data Seeker	112	20/04/2023 12:22	20/04/2023 12:22	19,042s	PASSED
<b>Test Cases/TS1/TC1.1.4</b>	Chrome 112.0.0.0	Wrong/not enough seeker data	114	20/04/2023 12:22	20/04/2023 12:23	19,523s	PASSED
<b>Test Cases/TS1/TC1.2.2</b>	Chrome 112.0.0.0	Valid Data Seeker login depending on TC1.1.2	122	20/04/2023 12:23	20/04/2023 12:23	15,210s	PASSED
<b>Test Cases/TS1/TC1.2.4</b>	Chrome 112.0.0.0	Data-seeker login fails with invalid data. Tries login again with the right data.	124	20/04/2023 12:23	20/04/2023 12:23	29,763s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS1/TC1.3.2</b>	Chrome 112.0.0.0	Log in, change avatar of data-seeker, and log out.	132	20/04/2023 12:23	20/04/2023 12:24	23,858s	PASSED
<b>Test Cases/TS1/TC1.4.2</b>	Chrome 112.0.0.0	Data-seeker logout	142	20/04/2023 12:24	20/04/2023 12:24	16,442s	PASSED

## 10.2 TS2 DATA COLLECTION-INGESTION (DATAOWNER)

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS2 Data collection-ingestion (DataOwner)</b>	Chrome 112.0.0.0			20/04/2023 16:56	20/04/2023 17:00	4m - 5,394s	PASSED
<b>Test Cases/TS2/TC2.1.1</b>	Chrome 112.0.0.0	Connect a Twitter data source.	2.1.1	20/04/2023 16:56	20/04/2023 16:57	28,254s	PASSED
<b>Test Cases/TS2/TC2.1.2</b>	Chrome 112.0.0.0	Connect a non-standard online source	2.1.2	20/04/2023 16:57	20/04/2023 16:57	31,116s	PASSED
<b>Test Cases/TS2/TC2.1.3a</b>	Chrome 112.0.0.0	Connect a given file	2.1.3a	20/04/2023 16:57	20/04/2023 16:58	21,865s	PASSED
<b>Test Cases/TS2/TC2.1.3b</b>	Chrome 112.0.0.0	Check the file uploaded	2.1.3b	20/04/2023 16:58	20/04/2023 16:58	13,616s	PASSED
<b>Test Cases/TS2/TC2.1.4a</b>	Chrome 112.0.0.0	Change the frequency. "Only once" frequency cannot be changed.	2.1.4a	20/04/2023 16:58	20/04/2023 16:58	12,692s	PASSED

<b>Test Cases/TS2/TC2.1.4b</b>	Chrome 112.0.0.0	Change the frequency	2.1.4b	20/04/2023 16:58	20/04/2023 16:59	25,433s	PASSED
<b>Test Cases/TS2/TC2.1.4c</b>	Chrome 112.0.0.0	Change the frequency	2.1.4c	20/04/2023 16:59	20/04/2023 16:59	14,844s	PASSED
<b>Test Cases/TS2/TC2.2.1</b>	Chrome 112.0.0.0	View the configuration of a standard online source. View the configuration of an uploaded file.	2.2.1- 2.2.3	20/04/2023 16:59	20/04/2023 16:59	13,816s	PASSED
<b>Test Cases/TS2/TC2.2.2</b>	Chrome 112.0.0.0	View the configuration of a non-standard online source. (Pending 2.1.2)	2.2.2	20/04/2023 16:59	20/04/2023 16:59	15,560s	PASSED
<b>Test Cases/TS2/TC2.2.3</b>	Chrome 112.0.0.0	View the configuration of an uploaded file.	2.2.3	20/04/2023 16:59	20/04/2023 17:00	14,757s	PASSED
<b>Test Cases/TS2/TC2.2.4</b>	Chrome 112.0.0.0	Duplicate a data source	2.2.4	20/04/2023 17:00	20/04/2023 17:00	19,310s	PASSED
<b>Test Cases/TS2/TC2.2.5</b>	Chrome 112.0.0.0	Remove a data source	2.2.5	20/04/2023 17:00	20/04/2023 17:00	13,701s	PASSED
<b>Test Cases/TS2/TC2.2.6-7</b>	Chrome 112.0.0.0	Disable and enable a data source	2.2.6- 7	20/04/2023 17:00	20/04/2023 17:00	17,204s	PASSED

### 10.3 TS3 DATA COLLECTION-SHARING CONF MNGT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt</b>	Chrome 112.0.0.0			21/04/2023 8:54	21/04/2023 9:00	6m - 2,860s	PASSED
<b>Test Cases/TS3/TC3.1</b>	Chrome 112.0.0.0	Search data	31	21/04/2023 8:54	21/04/2023 8:55	48,551s	PASSED
<b>Test Cases/TS3/TC3.2.1a</b>	Chrome 112.0.0.0	Define anonymization for a sharing configuration.	321	21/04/2023 8:55	21/04/2023 8:55	46,354s	PASSED
<b>Test Cases/TS3/TC3.2.1b</b>	Chrome 112.0.0.0	Define anonymization for a sharing configuration (google fit). No data, not to share.	321	21/04/2023 8:55	21/04/2023 8:56	44,192s	PASSED
<b>Test Cases/TS3/TC3.2.2</b>	Chrome 112.0.0.0	Define access policy for a sharing configuration	322	21/04/2023 8:56	21/04/2023 8:57	44,451s	PASSED
<b>Test Cases/TS3/TC3.2.3</b>	Chrome 112.0.0.0	Define privacy policies for a sharing configuration	323	21/04/2023 8:57	21/04/2023 8:58	45,472s	PASSED
<b>Test Cases/TS3/TC3.2.4</b>	Chrome 112.0.0.0	Define risk for a sharing configuration	324	21/04/2023 8:58	21/04/2023 8:58	43,653s	PASSED
<b>Test Cases/TS3/TC3.2.5a</b>	Chrome 112.0.0.0	A complete definition of a sharing configuration.	325	21/04/2023 8:58	21/04/2023 8:59	43,953s	PASSED
<b>Test Cases/TS3/TC3.2.5b</b>	Chrome 112.0.0.0	A complete definition of a sharing configuration. Check.	325	21/04/2023 8:59	21/04/2023 9:00	43,397s	PASSED





Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 2</b>	Chrome 112.0.0.0			21/04/2023 9:16	21/04/2023 9:17	51,014s	PASSED
<b>Test Cases/TS3/TC3.2.3</b>	Chrome 112.0.0.0	Define privacy policies for a sharing configuration	323	21/04/2023 9:16	21/04/2023 9:17	48,340s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 3</b>	Chrome 112.0.0.0			21/04/2023 9:24	21/04/2023 9:25	51,582s	PASSED
<b>Test Cases/TS3/TC3.2.4</b>	Chrome 112.0.0.0	Define risk for a sharing configuration	324	21/04/2023 9:24	21/04/2023 9:25	48,846s	PASSED"

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS3 Data collection-sharing conf mngt - 4</b>	Chrome 112.0.0.0			21/04/2023 9:33	21/04/2023 9:34	1m - 34,315s	PASSED
<b>Test Cases/TS3/TC3.2.5a</b>	Chrome 112.0.0.0	A complete definition of a sharing configuration.	325	21/04/2023 9:33	21/04/2023 9:34	47,894s	PASSED
<b>Test Cases/TS3/TC3.2.5b</b>	Chrome 112.0.0.0	A complete definition of a sharing configuration. Check.	325	21/04/2023 9:34	21/04/2023 9:34	43,642s	PASSED

## 10.4 TS4 DATA TRANSFORMATION-ENRICHMENT

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS4 Data transformation-enrichment</b>	Chrome 112.0.0.0			26/04/2023 9:52	26/04/2023 9:53	30,024s	PASSED
<b>Test Cases/TS4/TC4.1-4.2</b>	Chrome 112.0.0.0	Search and select among data assets. Generate analytics.	4.1-4.2	26/04/2023 9:52	26/04/2023 9:53	26,679s	PASSED

## 10.5 TS5 DATA ASSET SHARING EXECUTION

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS5 Data asset sharing execution</b>	Chrome 112.0.0.0			21/04/2023 9:58	21/04/2023 10:03	5m - 35,681s	PASSED
<b>Test Cases/TS5/TC5.2.1</b>	Chrome 112.0.0.0	Share with maximum privacy	521	21/04/2023 9:58	21/04/2023 9:58	47,250s	PASSED
<b>Test Cases/TS5/TC5.2.2</b>	Chrome 112.0.0.0	Share with low privacy	522	21/04/2023 9:58	21/04/2023 9:59	45,240s	PASSED
<b>Test Cases/TS5/TC5.2.3a</b>	Chrome 112.0.0.0	Share with customised parameters. Persona.	523	21/04/2023 9:59	21/04/2023 10:00	44,459s	PASSED
<b>Test Cases/TS5/TC5.2.3b</b>	Chrome 112.0.0.0	Share with customised parameters. No persona.	523	21/04/2023 10:00	21/04/2023 10:01	43,659s	PASSED
<b>Test Cases/TS5/TC5.2.4</b>	Chrome 112.0.0.0	Share with a conf previously saved	524	21/04/2023 10:01	21/04/2023 10:01	44,586s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS5/TC5.3a</b>	Chrome 112.0.0.0	Remove a data asset: consequences if it was shared previously.  a) Create the data asset."	53	21/04/2023 10:01	21/04/2023 10:02	20,813s	PASSED
<b>Test Cases/TS5/TC5.3b</b>	Chrome 112.0.0.0	Remove a data asset: consequences if it was shared previously.  b) Share the data asset."	53	21/04/2023 10:02	21/04/2023 10:02	44,476s	PASSED
<b>Test Cases/TS5/TC5.3c</b>	Chrome 112.0.0.0	Remove a data asset: consequences if it was shared previously.  c) Try to remove the data asset."		21/04/2023 10:02	21/04/2023 10:03	41,889s	PASSED

## 10.6 TS6 DATA ASSET PURCHASE-PERSONA GENERATION (DATA SEEKER)

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS6 Data asset purchase-persona generation (DataSeeker) - NEW</b>	Chrome 112.0.0.0			21/04/2023 10:31	21/04/2023 10:33	1m - 49,217s	PASSED
<b>Test Cases/TS6/TC6.1NEW</b>	Chrome 112.0.0.0	Search among available shared assets		21/04/2023 10:31	21/04/2023 10:32	57,610s	PASSED
<b>Test Cases/TS6/TC6.2-6.3bNEW</b>	Chrome 112.0.0.0	Check the MyVault after a purchase.		21/04/2023 10:32	21/04/2023 10:32	25,960s	PASSED
<b>Test Cases/TS6/TC6.2-6.3cNEW</b>	Chrome 112.0.0.0	The related DataOwner has gained points.		21/04/2023 10:32	21/04/2023 10:32	22,061s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS6 Data asset purchase-persona generation (DataSeeker) - NEW - 0</b>	Chrome 112.0.0.0			21/04/2023 10:33	21/04/2023 10:34	50,387s	PASSED
<b>Test Cases/TS6/TC6.2-6.3aNEW</b>	Chrome 112.0.0.0	Select data asset with a price. Buy data asset. Once the asset was bought, it disappears from the available data asset list.		21/04/2023 10:33	21/04/2023 10:34	47,079s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS6 Data asset purchase-persona generation (Data Seeker) - Final</b>	Chrome 112.0.0.0			21/04/2023 16:49	21/04/2023 16:52	2m - 26,466s	PASSED
<b>Test Cases/TS6/TC6.4a</b>	Chrome 112.0.0.0	Share asset with Persona feature		21/04/2023 16:49	21/04/2023 16:50	48,289s	PASSED
<b>Test Cases/TS6/TC6.4b</b>	Chrome 112.0.0.0	Create a Persona		21/04/2023 16:50	21/04/2023 16:51	48,291s	PASSED
<b>Test Cases/TS6/TC6.4c</b>	Chrome 112.0.0.0	Buy a Persona		21/04/2023 16:51	21/04/2023 16:51	47,690s	PASSED

## 10.7 TS7 DATA ASSET PURCHASE-INCOMPLETE SHARING CONF

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS7 Data asset purchase-incomplete sharing conf - 0</b>	Chrome 112.0.0.0			26/04/2023 16:07	26/04/2023 16:09	1m - 23,040s	PASSED
<b>Test Cases/TS7/TC7.0a</b>	Chrome 112.0.0.0	Create an asset without price		26/04/2023 16:07	26/04/2023 16:08	30,480s	PASSED
<b>Test Cases/TS7/TC7.0b</b>	Chrome 112.0.0.0	Share asset without price.		26/04/2023 16:08	26/04/2023 16:09	49,793s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS7 Data asset purchase-incomplete sharing conf</b>	Chrome 112.0.0.0			26/04/2023 16:16	26/04/2023 16:18	1m - 43,814s	PASSED
<b>Test Cases/TS7/TC7.1-7.2-7.3</b>	Chrome 112.0.0.0	Search among available shared assets. Select data asset with no price. Request for a data asset with no price		26/04/2023 16:16	26/04/2023 16:17	50,455s	PASSED
<b>Test Cases/TS7/TC7.4</b>	Chrome 112.0.0.0	Complete sharing configuration	74	26/04/2023 16:17	26/04/2023 16:18	50,464s	PASSED

## 10.8 TS8 CLOUD DATA ANALYTICS

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
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<b>TS8 Cloud data analytics</b>	Chrome 112.0.0.0			21/04/2023 13:32	21/04/2023 13:33	45,256s	PASSED
<b>Test Cases/TS8/TC8.1-8.2 NEW</b>	Chrome 112.0.0.0	Search among available bought assets. Generate analytics playground		21/04/2023 13:32	21/04/2023 13:33	42,752s	PASSED

## 10.9 TS9 QUESTIONNAIRES

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS9 Questionnaires</b>	Chrome 112.0.0.0			21/04/2023 13:47	2023-04-21 13:53:00""5m - 22	482s"	PASSED
<b>Test Cases/TS9/TC9.1-shortTest</b>	Chrome 112.0.0.0	A dataseeker creates a questionnaire.	9.1	21/04/2023 13:47	2023-04-21 13:48:29	51,071s	PASSED
<b>Test Cases/TS9/TC9.1-easy</b>	Chrome 112.0.0.0			21/04/2023 13:48	2023-04-21 13:49:18	48,466s	PASSED
<b>Test Cases/TS9/TC9.1a</b>	Chrome 112.0.0.0	The dataseeker saves a questionnaire.	9.1a	21/04/2023 13:49	2023-04-21 13:50:07	49,186s	PASSED
<b>Test Cases/TS9/TC9.1b</b>	Chrome 112.0.0.0	Remove a draft questionnaire	9.1b	21/04/2023 13:50	2023-04-21 13:50:24	17,403s	PASSED
<b>Test Cases/TS9/TC9.1c</b>	Chrome 112.0.0.0	The dataseeker designs a complete questionnaire.	9.1c	21/04/2023 13:50	2023-04-21 13:51:12	47,918s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>Test Cases/TS9/TC9.2</b>	Chrome 112.0.0.0	The data seeker shares a questionnaire.	9.2	21/04/2023 13:51	2023-04-21 13:51:59	46,192s	PASSED
<b>Test Cases/TS9/TC9.3-fail</b>	Chrome 112.0.0.0	A data owner is able to fulfill a questionnaire.	9.3	21/04/2023 13:51	2023-04-21 13:52:12	13,090s	PASSED
<b>Test Cases/TS9/TC9.4</b>	Chrome 112.0.0.0	The dataowner reviews a questionnaire	9.4	21/04/2023 13:52	2023-04-21 13:52:58	46,439s	PASSED

Suite/Test/Step Name	Browser	Description	Tag	Start time	End time	Duration	Status
<b>TS9 Questionnaires - 1</b>	Chrome 112.0.0.0			21/04/2023 13:54	21/04/2023 13:55	24,864s	PASSED
<b>Test Cases/TS9/TC9.1b</b>	Chrome 112.0.0.0	Remove a draft questionnaire	9.1b	21/04/2023 13:54	21/04/2023 13:55	21,448s	PASSED

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