Bachelor Thesis Description, status: allocated (Artur Wasinger), language: DE | EN

Implementation of a Web-UI for a Guided Data Source Configuration Workflow

Summary

The Open-Data-Service (ODS) is an open source software project, which collects heterogeneous data from various sources and makes this data easy to consume through a unified programmatic interface. Moreover, the ODS can improve the quality and availability of the data, and apply different operations to enhance the data.

On the source side, different adapters ensure that the proliferation of protocols, formats, and the complexity of the sources is easy to handle. On the user side, a query interface provides all data in a uniform and simple interface, regardless of their original format or interface.

A user who uses the ODS can focus on application development and doesn't have to struggle with different formats or interfaces of data sources.

The goal of this bachelor thesis is to design and develop a user interface that makes the configuration of a new data source easy. Currently, ODS is only accessible via a REST-API. The configuration of a new data source requires multiple steps and in these steps it is not clear which options are available, e.g. which filters can be applied.

A Web-UI would improve the user experience for the following task:

- Guided configuration workflow.
- Add/remove/show data sources.
- Add/remove/show filter for data.
- Add/remove/show processors for data.

Work Results

- Thesis methods
  - Definition of requirements.
  - Design and implementation of a RESTful API.
  - Evaluation of work.
- Thesis results
  - Design a UI for heterogeneous data configuration.
  - Implement a UI for heterogeneous data configuration.
    - Web-UI in Angular or React
    - With guided configuration workflow.
    - (optional) visualize heterogenous data .

Supervisor

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