

High level documentation of the architecture and design

This file gives a short description of the used architecture and the design of the project.

Architecture

A visual representation of our architecture is described in the framework graph. More information about the modules can be found [here](#) and [here](#).

Presentation Layer

To make the pages that the end users will see, we use TypeScript with the React framework. This calls the domain layer.

Domain Layer

To provide the data to the presentation layer in a structured way via an API, we use Python 3.10.2 with the FastAPI framework.

Persistence Layer

To call the database, and to be able to use the data easily in the domain layer, we use an ORM called SQLAlchemy.

Database Layer

The underlying database technology we use to finally store the data is MariaDB.

Design

The interaction diagrams of our application can be found [here](#). In those diagrams, the most important interactions between objects are shown.