

Figure 1 – BluePrint SDK’s chain of responsibility

This way, modules operate as one whole program while being absolutely separate, enabling them to be used by their own. Changes in one of the modules do not affect other modules, unless file format is changed.

This pattern allows SOLID principles to be used during development process. Every module has a designated role, which implies Single-Responsibility Principle. Functionality of components can be extended by adding new modules into the chain, or wrapping modules into other modules – Open-Closed Principle. Every module has certain formats for input and output files, and can be replaced other module that obeys to same rules – Liskov Substitution Principle. In general, specific formats of the files passed between the modules provides level of abstraction required for SOLID principles.

Each component of the SDK is tested separately by checking format and contents of each module – Unit testing. After that, the workflow is running as a whole (without intervention between the layers) – integration testing.

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CREATION OF SOFTWARE FOR THE AGGREGATION OF WORKING TIME AT AN ENTERPRISE

The decision to create a program for aggregating working hours arose due to the inconvenience of keeping track of time in several company resources. The company has 3 systems: a system for tracking weekends, a system for recording working hours (within the company and on the customer's side). This application provides aggregated and generalized data that can be used to make payroll calculations more efficiently and to make it easier for ordinary users to track time.

When developing the application, we chose to create a separate micro-service to collect data from all systems and then save it to the database. Java was chosen as the programming language, and Spring Boot as the web

framework. The user interface was implemented using the Vue framework, as it is great for embedding into an existing project.

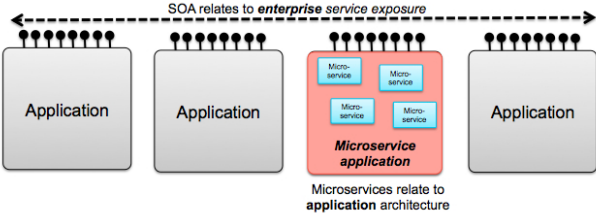


Figure 1 – Application architecture

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USING THE REACT FRAMEWORK WITH REDUX LIBRARY TO CREATE A WEBSITE FOR A TATTOO PARLOR

In order to develop a website for a tattoo parlor, the framework React was chosen. It allows you to implement all the necessary functionality for the site to work. Also, the selected framework allows you to make the pages interactive, which attracts the user.

The functionality of the React is built on the use of hooks, functions, as well as its own or third-party libraries. The React principle is built on state immutability, component reuse, and functional programming.

In working with React, Redux will help a lot by storing the necessary parameters in the global state (see figure 1). Also, these parameters can be used on any page of the site.

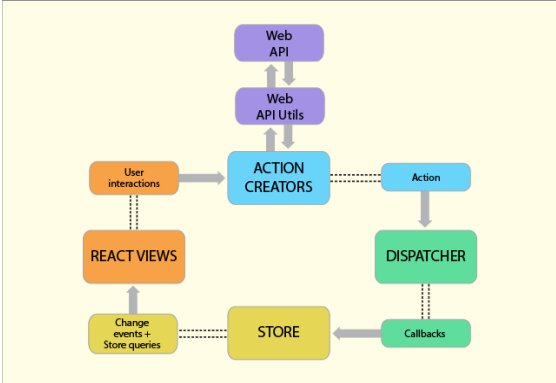


Figure 1 – Redux architecture