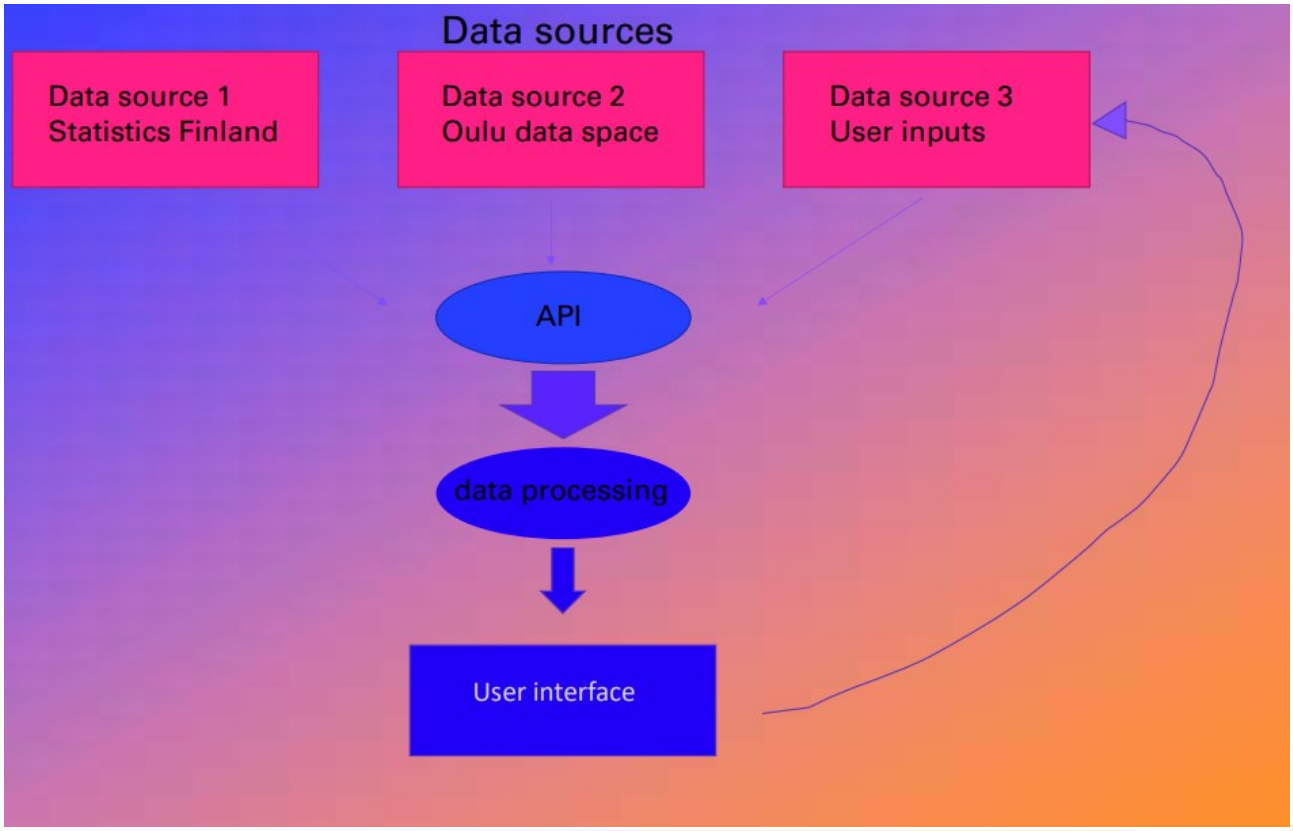
Course Project Task - Architectural Design



The image above shows the high-level hierarchy of our system. It can be roughly divided into about 4 components. The first component is data sources. Next is the Programming Interface, or API, through which databases are communicated. The third component is data processing, or in a way data mining. In this component, useful information and data that can be used for various purposes are extracted from the data. This information is then presented to the user in a fourth component, the user interface. Through the user interface, the user can also enter data that is used as a single data source. This is a high-level hierarchy and can be broken down into much smaller parts. For example, in reality, data processing would involve many smaller components.

Our Data platform is the node on this mesh that encapsulates the structural components required for its function, and as a product, it provides access to the domain's Analytical data. Components are deployed independently with excellent functional cohesion, and it has all the structural elements

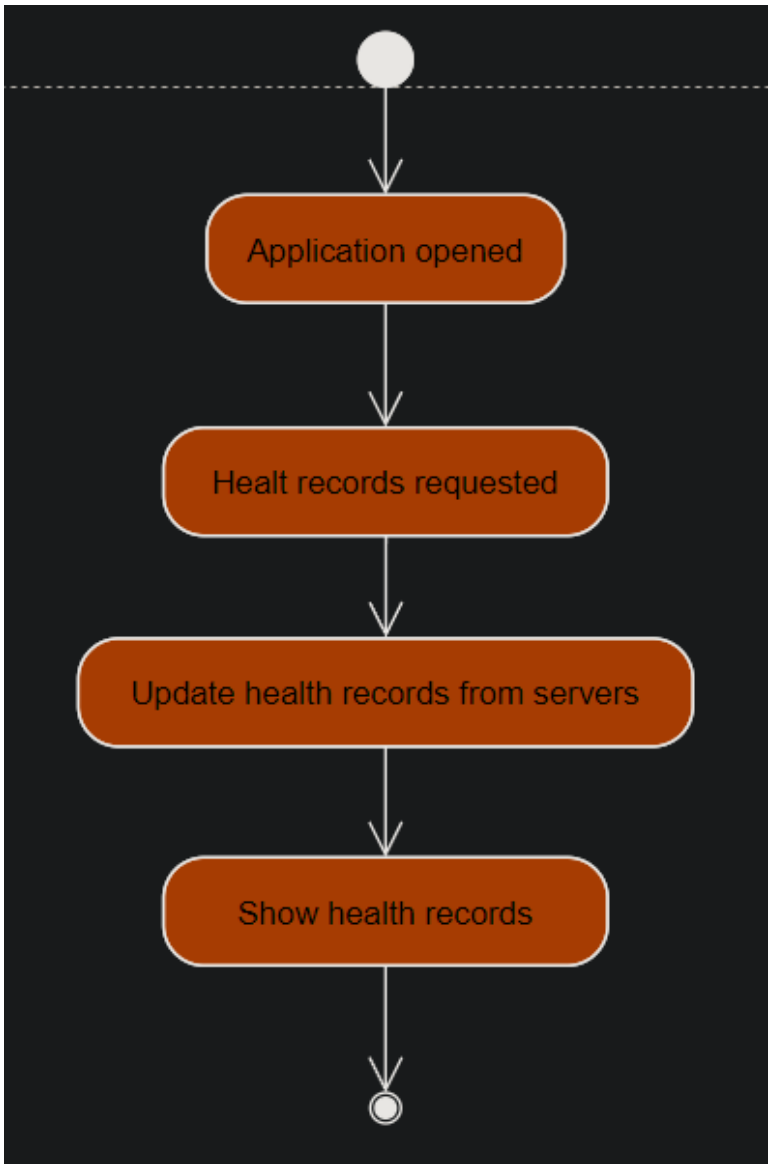
required for its operation. We deploy our services as containers and orchestrate them using a delivery platform.

The component-level interaction

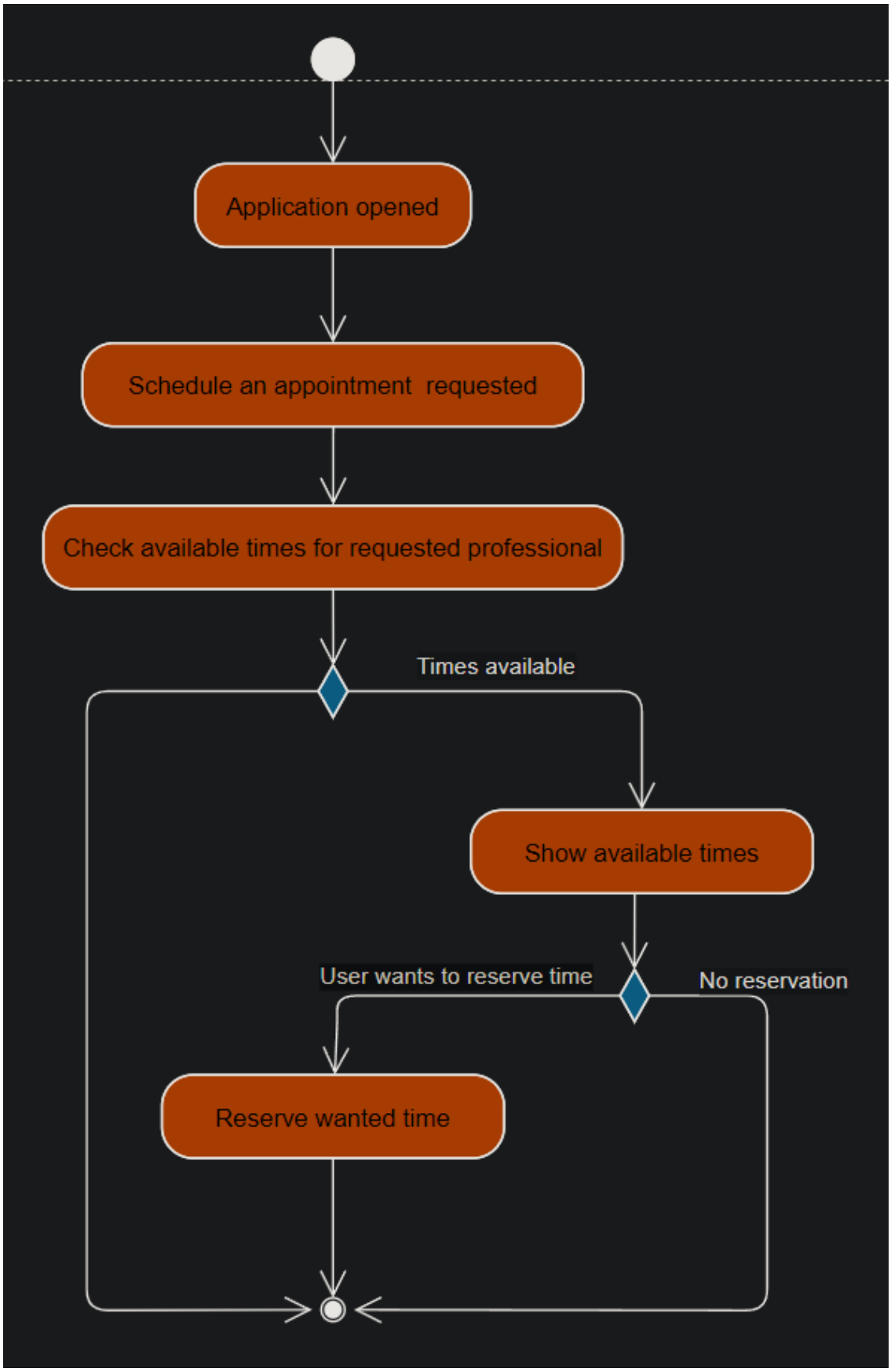
Users can easily connect to the platform through the different applications they use, such as a Smartphone app. Patients and healthcare professionals have their own interfaces through which they interact with the platform. Our platform utilizes external data sources through APIs. External apps and systems interact with each other in our platform via API's. For example, there is an API between the Smartphone app and the server that allows them to talk to each other.

Our project entails developing a smartphone application that allows for remote health counselling, as we are still fighting the coronavirus and should avoid physical contact as much as possible. Furthermore, there are many situations where physical examinations are not required, such as the common cold, minor injuries, lab results analysis, follow-up check-ups, etc. We can save a lot of time and protect the lives of our healthcare personnel by handling these situations remotely via video call.

The application will have two types of users: the first will be ordinary citizens who will be able to request consultations, schedule remote video calls or even physical appointments, if necessary, view their health reports online to see how healthy they are and perform some analysis, and receive personalized reminders and notifications about their health based on their own health problems.



The image above shows an activity chart where the user checks their own health information using the application.



The image above is an activity chart that the user is booking with a healthcare professional.