Research Assignment

1. **Main question**

* Is Spring boot suitable for implementing the back-end REST API platform for my individual project?

1. **Sub-questions**

* What is REST API platform?
* What is the topic of my individual project?
* Is Spring boot suitable for implementing REST API?

1. **What method will be used**

* For the first sub-question I will be using the “Literature study” method because it will allow you to find general information, guidance and best practices. You have to identify relevant keywords in order to find interesting references (repeat this search process with the keywords until you find a material with them in it).
* The topic that I choose for the individual project is “Ticket Selling system for football games”. For that case I will use “Observation” method because it will help me to collect information from larger sample of that target group. Also, I will need “Available product analysis” method to find out if someone else has already done my plannings.
* For the third sub-question I will be using the “Explore user requirement” method to get detailed view how the users will interact with the solution and what they required. Talking with the client to understand what their expectations and to explain how different users interact with the solution. I will also need “Community research” method to understand if someone has been tackled my situation. Incorporating my peers’ knowledge can seriously speed things up.

**4.Results**

1. What is REST API platform?

An API is a collection of definitions and protocols used to create and integrate application software. It is sometimes referred to as a contract between an information provider and an information user, and it establishes the content required from the consumer (the call) as well as the content required by the producer (the response) (Redhat, 2020).

When a client requests a RESTful API, it sends a representation of the resource's current state to the requester or endpoint. This data, or representation, is sent via HTTP in one of several formats: JSON, HTML, XLT, Python, PHP, or plain text. JSON is the most widely used file format because, despite its name, it is language-independent and can be read by both humans and machines (Uptrend [n.d.]).

1. What is the topic of my individual project?

The topic of my individual project is online ticket selling system for football matches. It will consist of 2 types of users (End-user(customer) and Organizational-user(admin)). The customer will be able to order tickets via website application to attend to the matches, while admin will be able to manage the prices, the number of the tickets and the places where the matches will be played

1. Is Spring boot suitable for implementing REST API?

**Spring Boot (a Java framework that aids in the development of backend APIs) is frequently used by developers to create scalable applications. Spring Boot can be used with any Eclipse, IntelliJ IDEA, Net beans, or other application infrastructure tools. The Spring Tool Suite offers capabilities that make it even easier to work with Spring applications (Spring [n.d.]).**

**5.Conclusion**

In conclusion, Spring boot could be helpful for implementing REST API back-end platform for my individual project. It may appear to be a bit effort in the beginning to build up all the dependencies and implementations for each resource type, but when you get the idea of Spring, you can upgrade with ease.

**6.Reference**

*What is a REST API?* (n.d.). Redhat. Retrieved November 5, 2022, from <https://www.redhat.com/en/topics/api/what-is-a-rest-api>

*What is REST API? | Uptrends*. (n.d.). Retrieved November 5, 2022, from https://www.uptrends.nl/wat-is/rest-api

*What is REST API? | Uptrends*. (n.d.). Retrieved November 5, 2022, from https://www.uptrends.nl/wat-is/rest-api

*Building REST services with Spring*. (n.d.). Spring. Retrieved November 5, 2022, from https://spring.io/guides/tutorials/rest/