

Learning Spring Boot - Basics

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CS 406 - Independent Project

Term: Fall 2023

GitHub Repository: <https://github.com/Yee152/CS-406-Learning-Spring-Boot>

This one-credit-hour project focuses on learning Spring Boot. Spring boot is a popular framework used by many companies in their tech department. During my internship, my company used spring boot as part of their tech stack. The goal of this project is to get familiar with spring boot and learn about building a spring boot project.

Spring boot helps users begin a project. In addition, Spring boot helps users easily configure projects and start coding, without the need to worry about issues that would arise from configuring projects. In addition, it is known to be easy to use because it provides the user with dependencies needed for their projects. Spring boot was designed to help users have production ready projects for a more streamlined project building process.

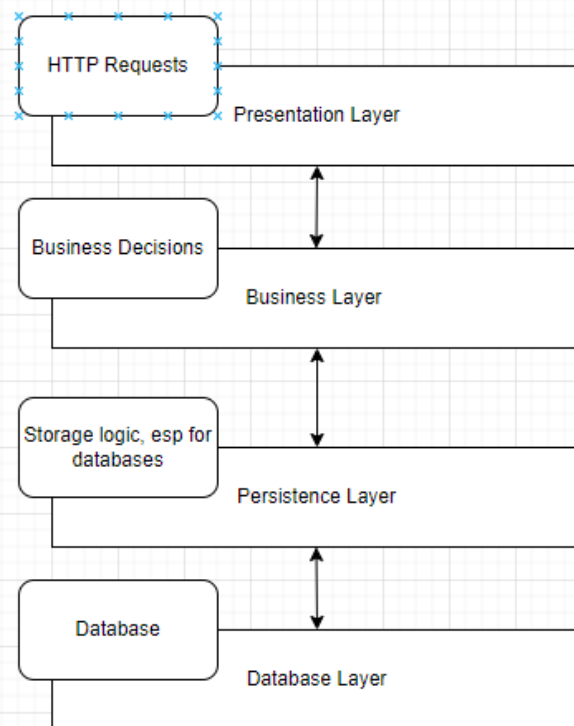
#### Technologies to Be Used:

- Spring Boot
- Postman to build test and modify APIs

#### Weekly Breakdown:

- Week 1: Build a development Plan
- Week 2:
  - a. Learn About Spring Boot
  - b. Set up Spring Boot project and basic API structure
  - c. Define Spring Boot layers (Mock up a diagram)
- Week 3: Progress Report Video
  - a. Completed code and learning
  - b. Challenges
  - c. Solutions
- Week 4: Define Databases for Spring Boot
  - a. Create a fake model or basis for project
  - b. Other things learned about Spring Boot
  - c. Learn about dependencies
  - d. Learn about annotations
- Week 5: Define Rest Controller
  - a. Implement basic rest controller
  - b. Learn about rest controllers in regards to spring boot.
- Week 6: Progress Report Video
  - a. Completed code and learning
  - b. Challenges
  - c. Solutions

- Week 7 - Explore Postman and learning about Postman
  - a. Make a POST using Postman
  - b. Make a GET using Postman
- Week 8 - Learn about API endpoints
  - a. Discuss the things learned about API endpoints
- Week 9 - Final Demonstration Video
  - a. Discuss the final project
  - b. 5-7 minute runtime video uploaded to YouTube
- Week 10 - Project Reflection Paper
  - a. Completed items during this whole project
  - b. Learned over the course of the term
  - c. What went went and what did not go well
  - d. No continuation of this project



This project is only supposed to scratch the surface of learning a new technology like Spring Boot. Learning about API structures, API endpoints and the benefits/cons of using Spring Boot to begin new projects.

Resources:

<https://spring.io/guides/tutorials/rest/>

<https://www.geeksforgeeks.org/spring-boot-architecture/#>

<https://www.interviewbit.com/blog/spring-boot-architecture/>