

# Final Project Overview



**Estimated time needed:** 4 minutes

## Learning objectives

After completing this project, you will be able to:

- Build Spring Boot applications using Spring Initializr
- Create Maven projects from scratch
- Utilize appropriate annotations in Spring
- Design and implement controllers, models, getters, and setters for a robust Spring MVC application
- Implement logging mechanisms using SLF4J in Spring applications
- Craft intuitive Spring MVC forms with Thymeleaf
- Configure security features to safeguard your Spring MVC application

## About the project

Welcome to the final project for this Spring Framework Fundamentals course. In this project, you will apply the knowledge and skills you learned in this course to a simulated scenario.

In this project, you will create a secure Quiz Application using Spring framework incorporating Spring Web, Thymeleaf, and Spring Security as dependencies.

This final project includes eleven tasks and will take about 60 minutes to complete.

### Task 1: Install the tools

Install all the tools required for developing a Spring MVC project

### Task 2: Initialize the project

Use Spring Initializr to generate a Spring Boot project with dependencies for Spring Web, Thymeleaf, and Spring Security

### Task 3: Create the folders to organize the code

Create model, controller, service, and config folders under the appropriate package structure

### Task 4: Create User class

Create a class named User in the model folder

### Task 5: Create Question class

Create a class named Question in the model folder

### Task 6: Create service class for the users

Create QuizUserDetailsService class with a data structure to store the user details in memory in the service layer

### Task 7: Create service class for the questions

Create QuestionsService class with a data structure to store the questions in memory in the service layer

### Task 8: Create a controller to provide endpoints

Create QuizController class to handle HTTP requests and define application endpoints

### **Task 9: Create a class to protect endpoints**

Create webSecurityConfig class that authenticates and authorizes the endpoints according to the user roles

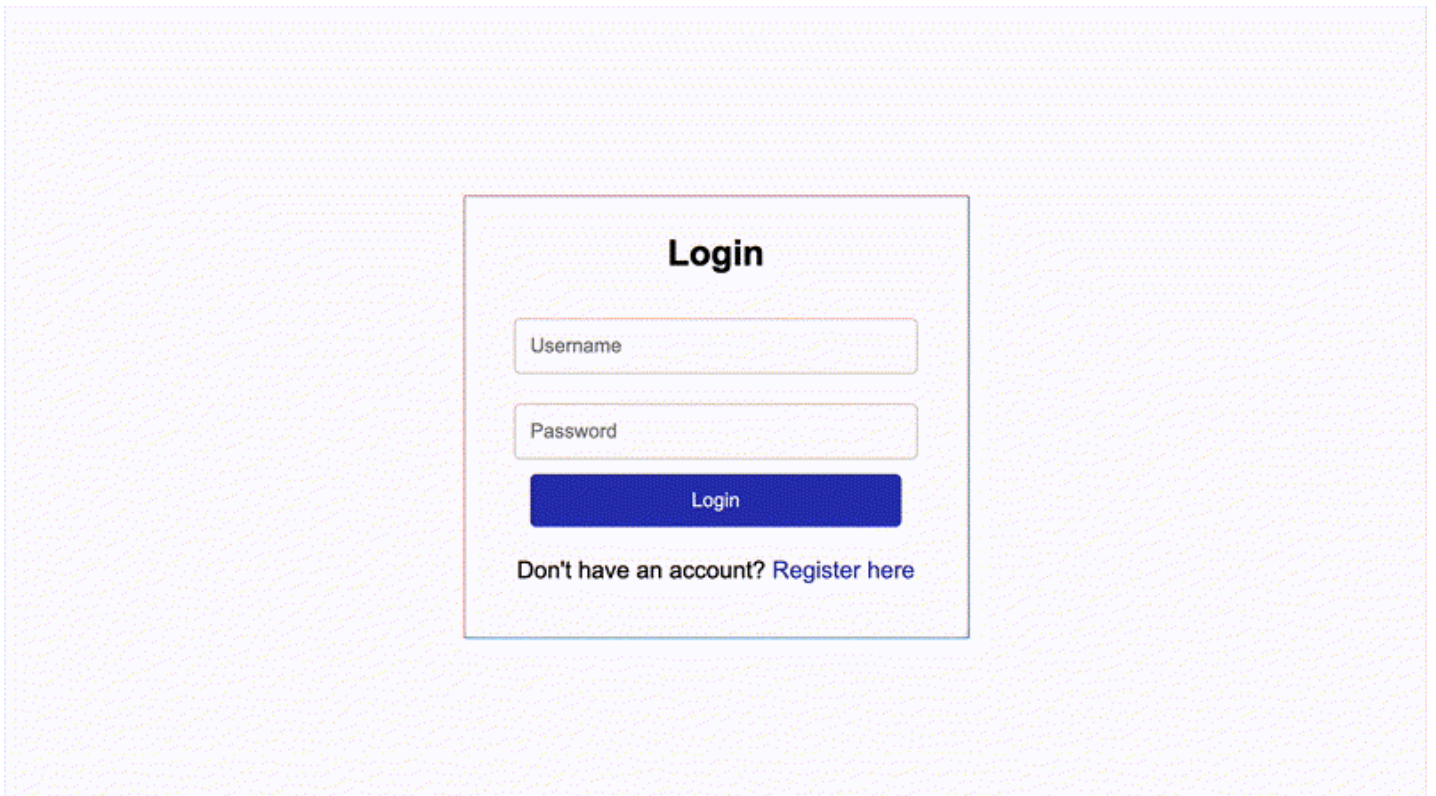
### **Task 10: Create user interface**

Create the HTML files using Thymeleaf templates for the application interface

### **Task 11: Create the runnable jar file**

Create the runnable jar file. You will be submitting this file for peer evaluation.

An exemplar of the application's screens can be seen below.



### **To summarize:**

- Read and follow the instructions carefully to complete the project

Let's get started!

## **Author(s)**

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