Shalin Chore

Technologies Overview

**GIT** - Git is a ***distributed version control system*** that tracks changes in source code to facilitate collaboration and project management. It does so by keeping track of insertions/deletions in a file.

**Maven** - Maven is a build automation and project management tool for Java projects that simplifies dependency management and project configuration.

**SpringBoot** - Spring Boot is an **open-source Java framework** designed to simplify the creation and deployment of web applications and microservices. It is built on top of the **Spring Framework** and provides a faster and easier way to set up, configure, and run both simple and web-based applications

**JUnit** - JUnit is an **open-source unit testing framework** for the Java programming language. It allows developers to write and execute automated tests to ensure that their code works as expected..

**Mockito** - Mockito is a mocking framework. Mocking is a process of developing the objects that act as the mock or clone of the real objects. In other words, mocking is a testing technique where mock objects are used instead of real objects for testing purposes. Mock objects provide a specific (dummy) output for a particular (dummy) input passed to it.

**FlyWay** - Flyway is an open-source database migration tool that helps manage and automate database version control and migrations. It supports a wide range of databases and allows developers to track changes, apply migrations, and keep the database schema in sync with the application code.

**Postman** -Postman is an API platform designed to simplify the process of building, testing, and managing APIs. It provides a comprehensive set of tools that streamline the entire API lifecycle, from design and testing to documentation and collaboration.

**Annotations** - Spring Boot Annotations are a form of metadata that provides data about a spring application.

@controller - This tells Spring that this class handles incoming requests from the web browser.

@Autowired - The @Autowired annotation tells Spring to automatically inject instances of the classes when this controller is created.

@GetMapping("/users") - This defines a method that handles requests sent to the "/admin/users" path using the GET method (typically used for retrieving data).

@Entity - @Entity is like saying "This Java class is like a template for a row in my database table”.

**Stub**: Stub objects hold predefined data and provide it to answer the calls during testing. They are referred to as a dummy object with a minimum number of methods required for a test.

**Session -** A session is a mechanism to maintain state information between multiple requests from the same user. This is crucial for web applications where HTTP is stateless by nature. Sessions help in tracking user activities and data across different pages of the application.

(Parameters)

HttpSession session - This allows access to the user's session information (if they are logged in).

Model model - This is used to store data that will be passed to the view template (the HTML page).

RedirectAttributes redirectAttributes - This is used to store temporary messages (like "You are not authorized") that will be displayed on the next page after a redirect.

**Stateless Protocol** - Stateless Protocols are the type of network protocols in which the Client sends a request to the server and the server responds back according to the current state. It does not require the server to retain session information or status about each communicating partner for multiple requests

**Stateful Protocol** - Stateful Protocol requires the server to save the status and session information.