Practicing Testing with JUnit

Overview

This section aims to use JUnit 5 to create thorough test cases. You will use what you've learned in previous lectures to apply testing methods and techniques to the applications you built in the course. This will help you better understand testing and how it works. This module serves as a pivotal opportunity to:

- **Consolidate Understanding**: Solidify your comprehension of JUnit 5 testing frameworks and methodologies.1
- **Debugging and Error Handling**: Identify and address potential bugs or unexpected behaviour within the applications, demonstrating proficiency in debugging and error resolution strategies.

This module is designed to improve your understanding of testing methods using JUnit 5. It emphasizes the importance of testing to ensure the quality and reliability of software applications. Testing is an essential part of the software development process.

Guideline for Testing Applications

- During the testing phase, each application will be evaluated for its **service**, **repository**, and **controller** layers based on the testing knowledge till this module.
- The *Controller* layer will be tested using **mockMvc**. Additionally, the respective services will be mocked.
- The *Service* layer will be tested using the **Mockito** framework, allowing the repository layer to be mocked.
- The *Repository* test will done using a test container, as explained in the earlier lecture.
- Finally, you must implement what you have understood and learned.

List of Projects for Testing

- MovieBooking Application: (There will be no repository test for movie booking applications.)
- Todo Management Application
- Foodies Application