Project Report: Automated Functional Testing of a Responsive To-Do List

Project Title

Automated Functional Testing of a Responsive To-Do List using Java & Selenium WebDriver

Objective

To automate the functional testing of a responsive To-Do list web application using Selenium WebDriver in Java. The goal is to verify core features such as:

- Adding tasks

- Marking tasks as complete

- Deleting tasks

Technology Stack

Frontend: HTML, CSS, JavaScript

Automation: Java, Selenium WebDriver

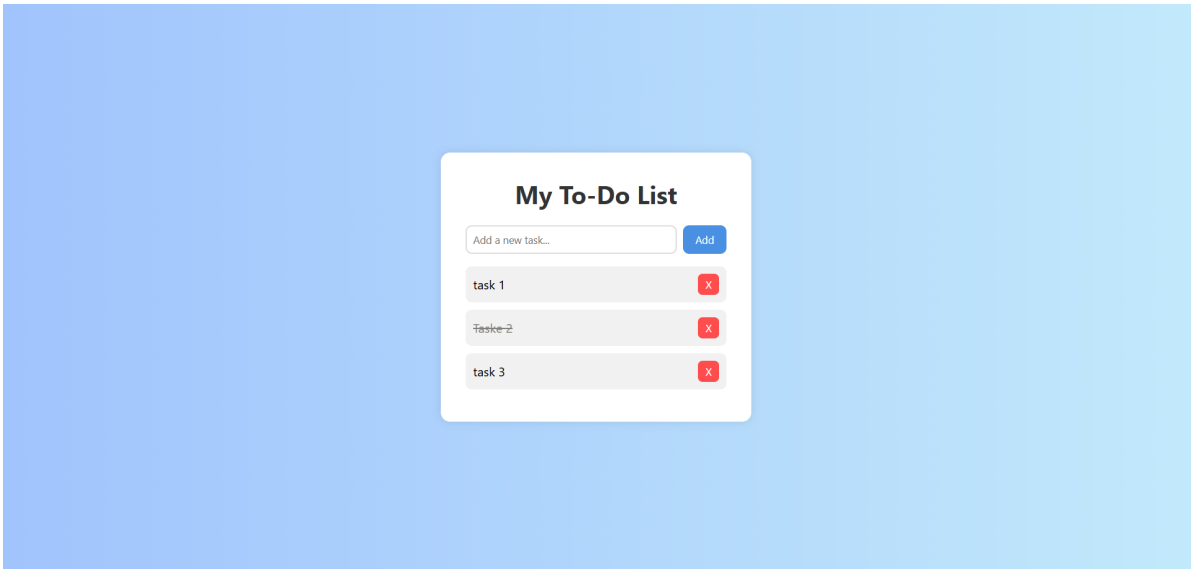
Browser: Google Chrome (v138.0.7204.158 - 32-bit)

WebDriver: ChromeDriver

IDE: IntelliJ IDEA Community Edition

OS: Windows 11 (64-bit)

Screenshot



Application features

- Add Task: User inputs task and clicks 'Add' to append it to the list

- Complete Task: Clicking a task toggles completion (strike-through style)

- Delete Task: Clicking the 'X' button removes the task from the list

- Responsive UI: Clean layout using CSS

Test Cases Covered

1. Open local HTML file - Passed

2. Enter a new task and click Add - Passed

3. Validate that the task is added - Passed

4. Mark the task as completed (click) - Passed

5. Delete the task - Passed

6. Confirm task is removed - Passed

Result

The test executed successfully. It confirmed that tasks can be added, marked as completed, and deleted. The UI responded correctly for all test cases.

Challenges and Fixes

Issue: ERR_FILE_NOT_FOUND -> Fix: Used correct file:/// path format

Issue: ChromeDriver path error -> Fix: Set correct ChromeDriver path and version

Issue: Chrome automation banner -> Fix: Disabled automation warning using ChromeOptions

Conclusion

The responsive To-Do List application was successfully tested using Selenium WebDriver. All core features were verified and the application behaves correctly across key functionalities.