

Test Strategy Document - Selenium + TestNG Todo App

Objective

To validate the core functionalities of a sample Todo web application using automated UI and API tests.

This ensures that the system works correctly under both positive and negative scenarios.

Scope of Testing

- UI Functional Testing with Selenium + TestNG:
 - User Login (valid & invalid)
 - Add Todo Item
 - Edit Todo Item
 - Delete Todo Item
 - Validate UI content post actions

Test Coverage

Feature	Test Scenario	Covered
-----	-----	-----
Login	Valid credentials	Yes
	Invalid credentials	Yes
Todo Operations	Create new item	Yes
	Edit item	Yes
	Delete item	Yes
UI Validation	Data present after actions	Yes

Tools Used

- Selenium WebDriver: Automate browser interaction
- TestNG: Test execution and reporting
- Maven: Dependency management
- ChromeDriver: Chrome browser automation

How to Run the Tests

1. Install prerequisites:

- Java JDK 8+
- Maven
- Chrome browser
- ChromeDriver in PATH

2. Run the tests:

`mvn clean test`

3. Test Report:

View HTML/console results in:
`target/surefire-reports/`

Assumptions

- Test environment is stable and available.
- Chrome browser is used for UI automation.
- The application under test is up and has consistent data.
- No 2FA or CAPTCHA during login.

Limitations

- No cross-browser testing configured.
- No visual regression testing unless integrated with Percy or AppliTools.
- Tests may break if locators change without updating selectors.