

Selenium - Java Sample Test Automation Framework

I have developed a sample Test Automation Framework for the UI of zipBoard using Selenium with Java, showcasing my expertise in Automation Testing. As part of this project, I successfully completed the following tasks.

1. Automated zipBoard login process.
2. Developed an automated test script for creating a new project.
3. Automated the task addition process.
4. Automated the project deletion process.

Choice of Framework (Selenium Java)

I chose Selenium with Java for this test script because it is widely used. Selenium is a popular framework for automating web applications, and it supports multiple programming languages, including Java. Java is widely used in enterprise environments and has a rich ecosystem of testing libraries, making it a great choice for building scalable and maintainable test automation solutions. A large community means ample resources, tutorials, and support when troubleshooting issues.

Design Pattern Used

This script will utilise the Data-Driven Approach:

Data-Driven Testing : separates test data from test scripts, enabling the same test case to run with different sets of data from sources like Excel files, CSV, databases, or JSON.

Also, it's easier to manage test data separately, making it ideal for scenarios where the input data changes frequently.

Pre-requisites and Setup Instructions

1. Install Java JDK
Download and install the latest JDK from the [Oracle website](#).
2. Install Maven
Download and install Maven from the Maven [website](#).
3. Set Up an IDE:
Use an IDE like IntelliJ IDEA or Eclipse.
4. Open the downloaded [project](#) in any IDE like Eclipse

Project structure

- └─ zipBoardTestAutomationFramework
 - └─ src/main/java
 - └─ src/main/resources
 - └─ log4j.properties
 - └─ src/test/java
 - └─ com.w2a.base
 - └─ TestBase.java
 - └─ com.w2a.listeners
 - └─ CustomListeners.java
 - └─ com.w2a.rough
 - └─ com.w2a.testcases
 - └─ ProjectCreationTest.java
 - └─ ProjectDeletionTest.java
 - └─ TaskCreationTest.java
 - └─ UserLoginTest.java
 - └─ com.w2a.utilities
 - └─ ExcelReader.java
 - └─ ExtentManager.java
 - └─ SeleniumHelper.java
 - └─ TestUtil.java
 - └─ src/test/resources
 - └─ excel
 - └─ testdata.xlsx
 - └─ executables
 - └─ chromedriver
 - └─ extentconfig
 - └─ ReportsConfig.xml
 - └─ logs
 - └─ Application.log
 - └─ applog.txt
 - └─ Selenium.log
 - └─ properties
 - └─ Config.properties
 - └─ log4j.properties
 - └─ OR.properties
 - └─ runner
 - └─ JRE System Library [JavaSE-1.8]
 - └─ Maven Dependencies
 - └─ TestNG
 - └─ src
 - └─ target
 - └─ generated-sources
 - └─ generated-test-sources
 - └─ maven-status
 - └─ surefire-reports
 - └─ test-output
 - └─ pom.xml

Key Considerations

Kindly provide credentials (email and pass) for zipBoard of sheet 'UserLoginTest' in `testData.xlsx` in folder `src/test/resources/excel/testData.xlsx`, to run the test.

Steps to Run the Tests

Build the Project:

Open the terminal in your project directory.

Run `mvn clean install` to build the project and download dependencies.

Run the Tests:

Use the TestNG plugin in your IDE or run, `mvn test` from the terminal. The tests will launch the browser, navigate to the specified URL, add an annotation, and close the browser after execution.

(OR)

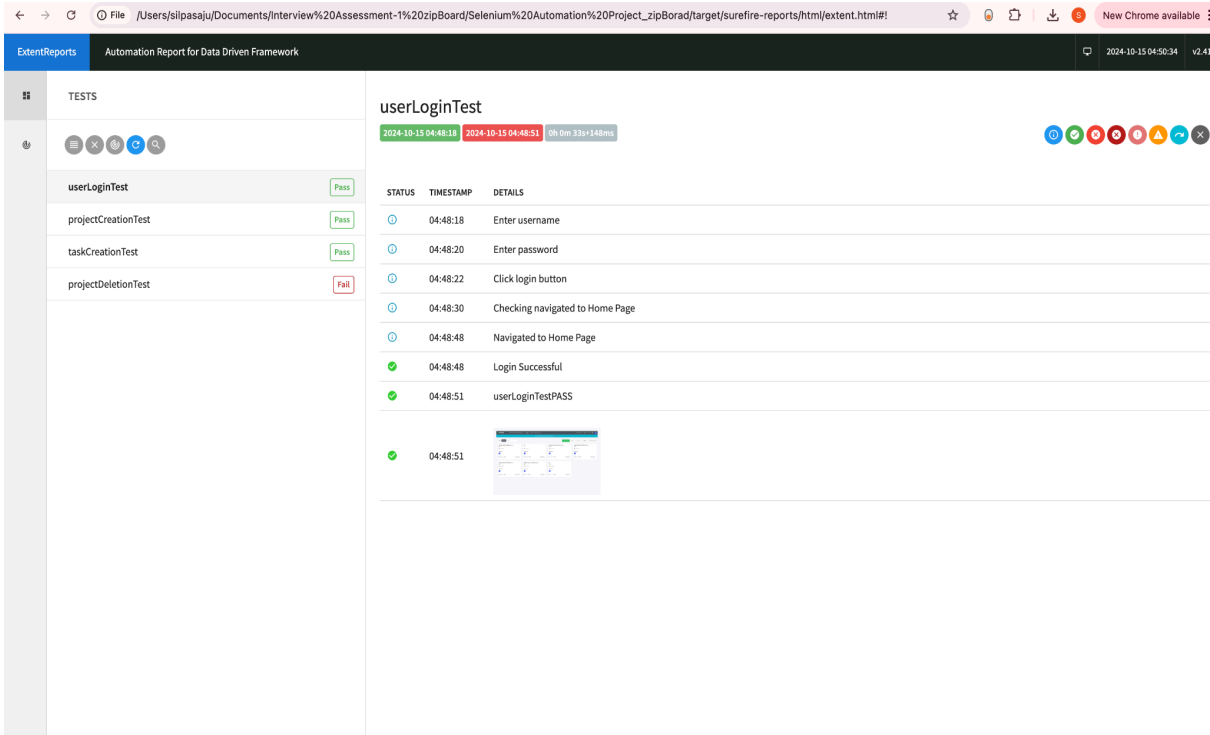
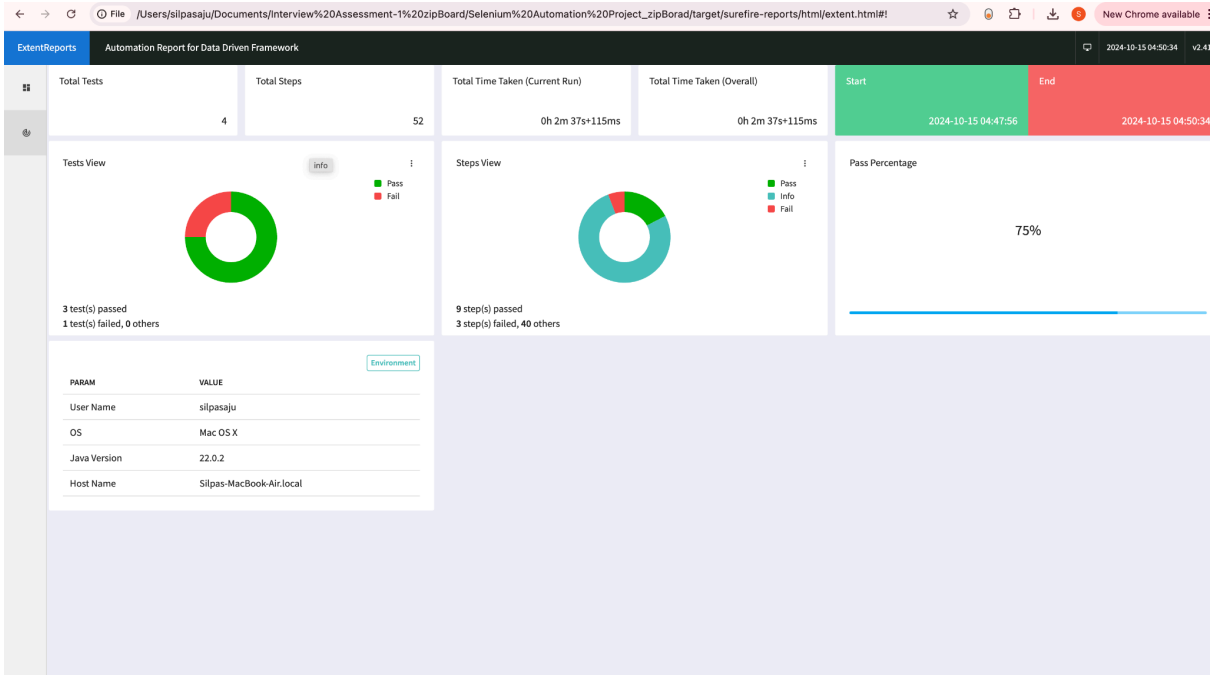
Build the project in Eclipse and run the `testng.xml` file

Report Generated By Automating zipBoard

Reports generated after running the `testng.xml` file can be found in

`src/target/surefire-reports/html/extent.html` open `'extent.html'` in any web browser

Sample screenshots of Report generated



ExtentReportsAutomation Report for Data Driven Framework

TESTS

userLoginTest

Pass

projectCreationTest

Pass

taskCreationTest

Pass

projectDeletionTest

Fail

taskCreationTest

2024-10-15 04:49:152024-10-15 04:50:010h 0m 45s+183ms

STATUS

TIMESTAMP

DETAILS

04:49:16

Click on Task nav-bar button

04:49:16

Click on add Task button

04:49:24

Checking pop-up appeared

04:49:26

Pop-up appeared to enter details of new task

04:49:26

Enter new Task Title

04:49:27

Click on add Title button

04:49:27

Enter new Task Description

04:49:46

Click on Task Status drop down button

04:49:48

Select Task Status

04:49:49

Click on Task Type drop down button

04:49:49

Select Task Type

04:49:50

Click on Task Priority drop down button

04:49:50

Select Task Priority

04:49:50

Click on Task Close button

04:49:50

Check task is created

04:49:51

New Task is created successfully


04:49:51

ZipBoard Task Creation Test

04:50:01

taskCreationTestPASS

04:50:01



ExtentReportsAutomation Report for Data Driven Framework

TESTS

userLoginTest

Pass

projectCreationTest

Pass

taskCreationTest

Pass

projectDeletionTest

Fail

projectDeletionTest

2024-10-15 04:50:012024-10-15 04:50:340h 0m 32s+770ms

STATUS

TIMESTAMP

DETAILS

04:50:01

Click on Project Navigation bar

04:50:02

Waiting for project page to load

04:50:14

Click on nav-bar to display the view of projects

04:50:18

Enter Project Id in search bar

04:50:26

Specified Project Id is displayed in Table

04:50:26

Click on Project delete button

04:50:28

Click Project delete button

04:50:29

Checking project is deleted from table

04:50:29

Enter Project Id in search bar

04:50:33

Specified Project Id didn't got deleted from Table

04:50:33

Project deletion failed

04:50:34

PROJECTDELETIONTESTFailed with exception : java.lang.Error: Specified Project Id didn't got deleted from Table

04:50:34

