Facebook and Google unit testing: Authentication & Search

1. Start by creating a new Gradle project for unit testing.

2 **Writing Test Classes**

Create two test classes, one for Google and one for Facebook:

GoogleTest.java:

In this class, we write test cases for Google's search functionality. we can specify what we want to search for and ensure that the search results are accurate.

FacebookTest.java:

This class is dedicated to testing Facebook's login functionality. You can write test cases to simulate different users logging in with their email and password combinations.

TestBase class:

- This class contains common setup and teardown methods for your test classes.
- It initializes the web browser (Chrome) for automating tasks.

GoogleTest class:

- This class is used to perform unit tests on Google's search feature.
- You can verify that searching for specific queries yields accurate results.

FacebookTest class:

- This class is dedicated to testing Facebook's login system.
- You'll simulate users logging in with various email and password combinations and assert the expected behavior.

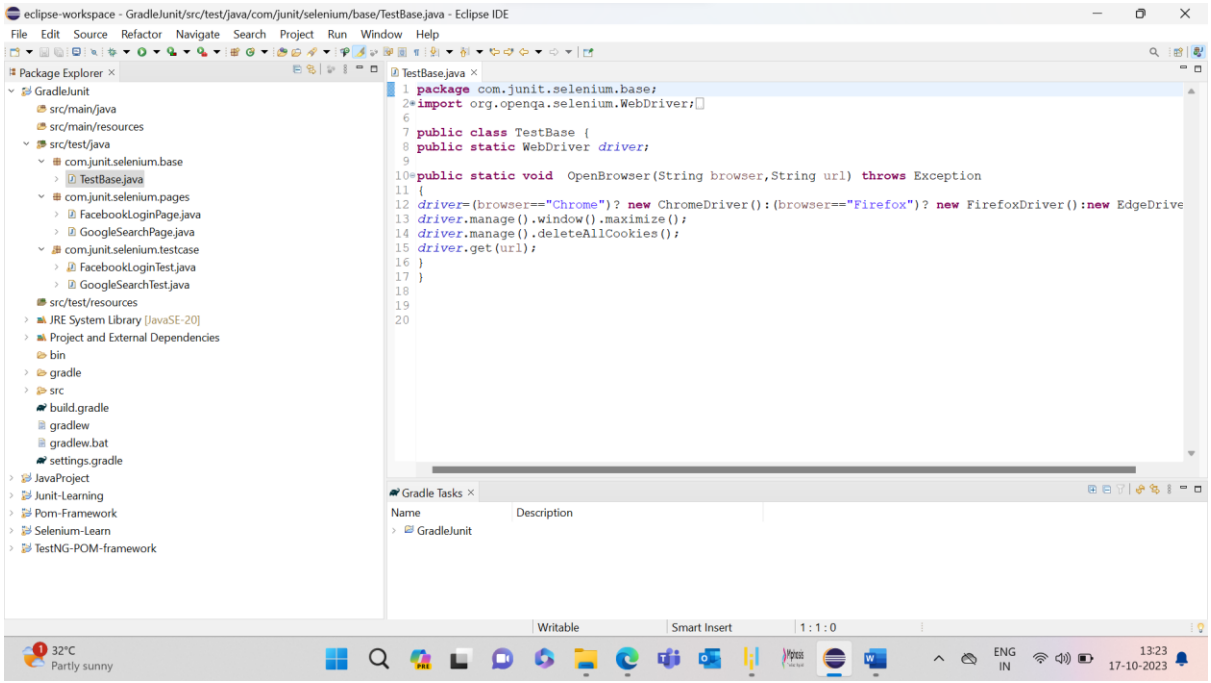
GoogleSearchPage class:

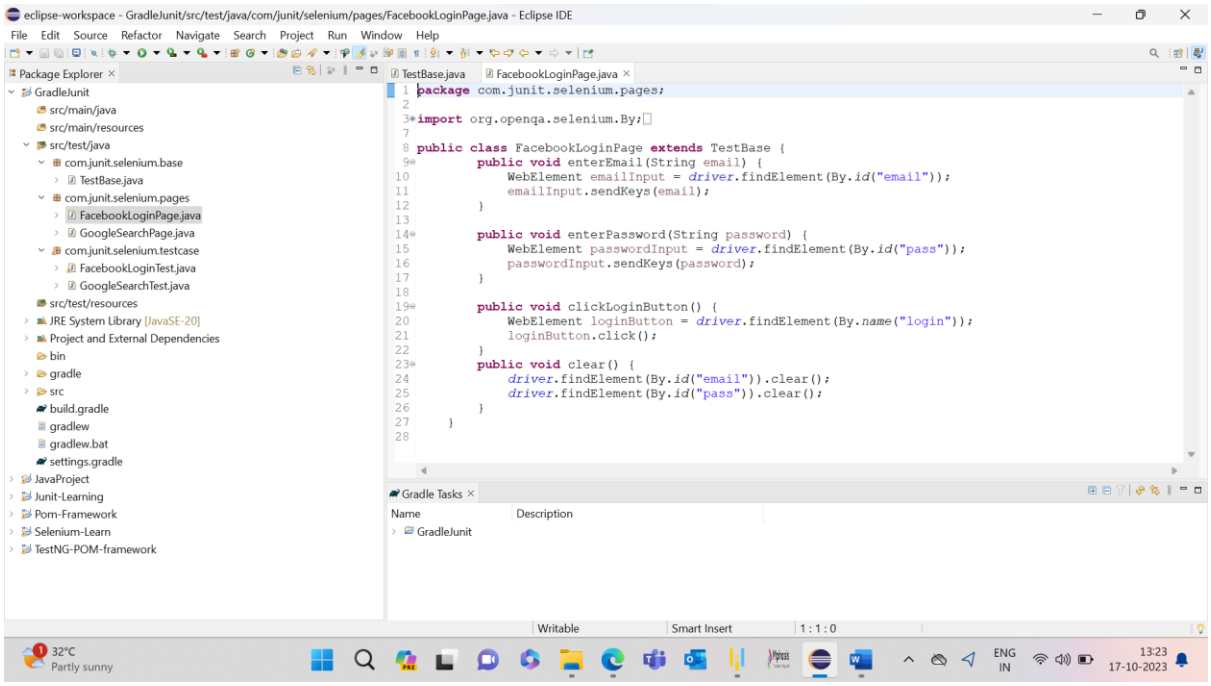
- This class is used to set up the Google search page for testing.

FacebookLoginPage class:

- This class is used to set up the Facebook login page for testing.

- GradleJunit
  - src/main/java
  - src/main/resources
  - src/test/java
    - com.junit.selenium.base
      - TestBase.java
    - com.junit.selenium.pages
      - FacebookLoginPage.java
      - GoogleSearchPage.java
    - com.junit.selenium.testcase
      - FacebookLoginTest.java
      - GoogleSearchTest.java
  - src/test/resources
  - JRE System Library [JavaSE-20]
  - Project and External Dependencies
  - bin
  - gradle
  - src
  - build.gradle
  - gradlew
  - gradlew.bat
  - settings.gradle




eclipse-workspace - GradleJunit/src/test/java/com/junit/selenium/pages/FacebookLoginPage.java - Eclipse IDE
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FacebookLoginPage.java
1 package com.junit.selenium.pages;
3 import org.openqa.selenium.By;
8 public class FacebookLoginPage extends TestBase {
9 public void enterEmail(String email) {
10 WebElement emailInput = driver.findElement(By.id("email"));
11 emailInput.sendKeys(email);
12 }
13
14 public void enterPassword(String password) {
15 WebElement passwordInput = driver.findElement(By.id("pass"));
16 passwordInput.sendKeys(password);
17 }
18
19 public void clickLoginButton() {
20 WebElement loginButton = driver.findElement(By.name("login"));
21 loginButton.click();
22 }
23 public void clear() {
24 driver.findElement(By.id("email")).clear();
25 driver.findElement(By.id("pass")).clear();
26 }
27 }
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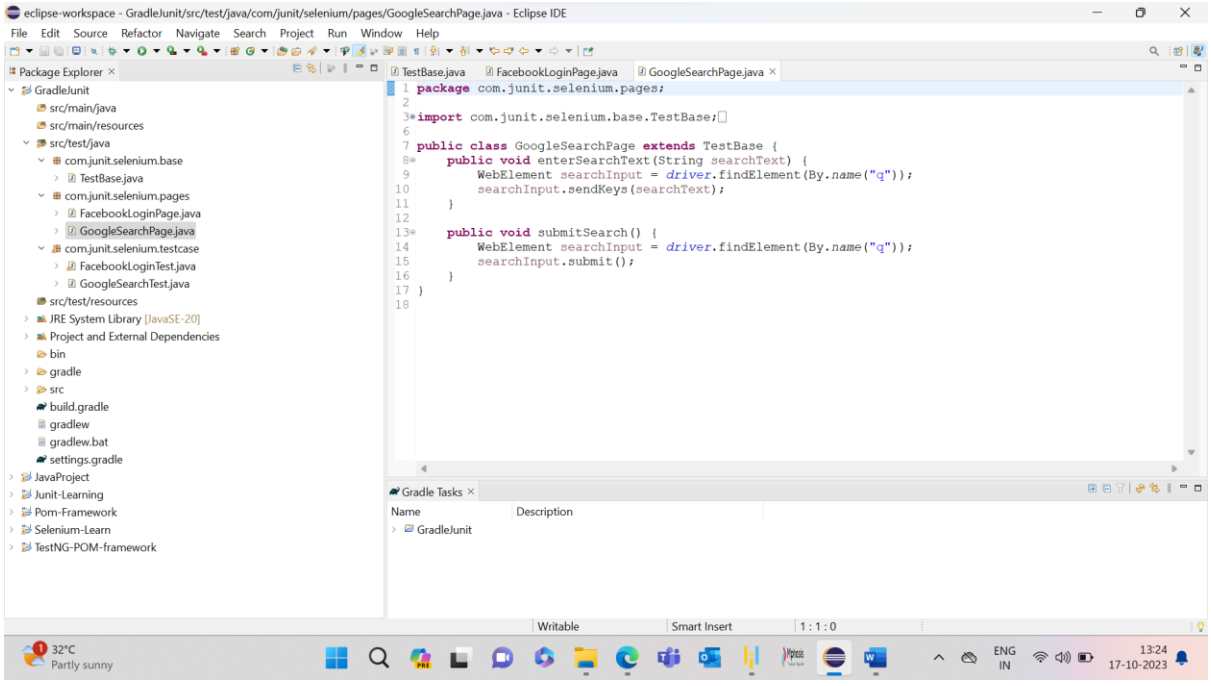
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FacebookLoginPage.java
GoogleSearchPage.java
1 package com.junit.selenium.pages;
3 import com.junit.selenium.base.TestBase;
7 public class GoogleSearchPage extends TestBase {
8 public void enterSearchText(String searchText) {
9 WebElement searchInput = driver.findElement(By.name("q"));
10 searchInput.sendKeys(searchText);
11 }
12
13 public void submitSearch() {
14 WebElement searchInput = driver.findElement(By.name("q"));
15 searchInput.submit();
16 }
17 }
18
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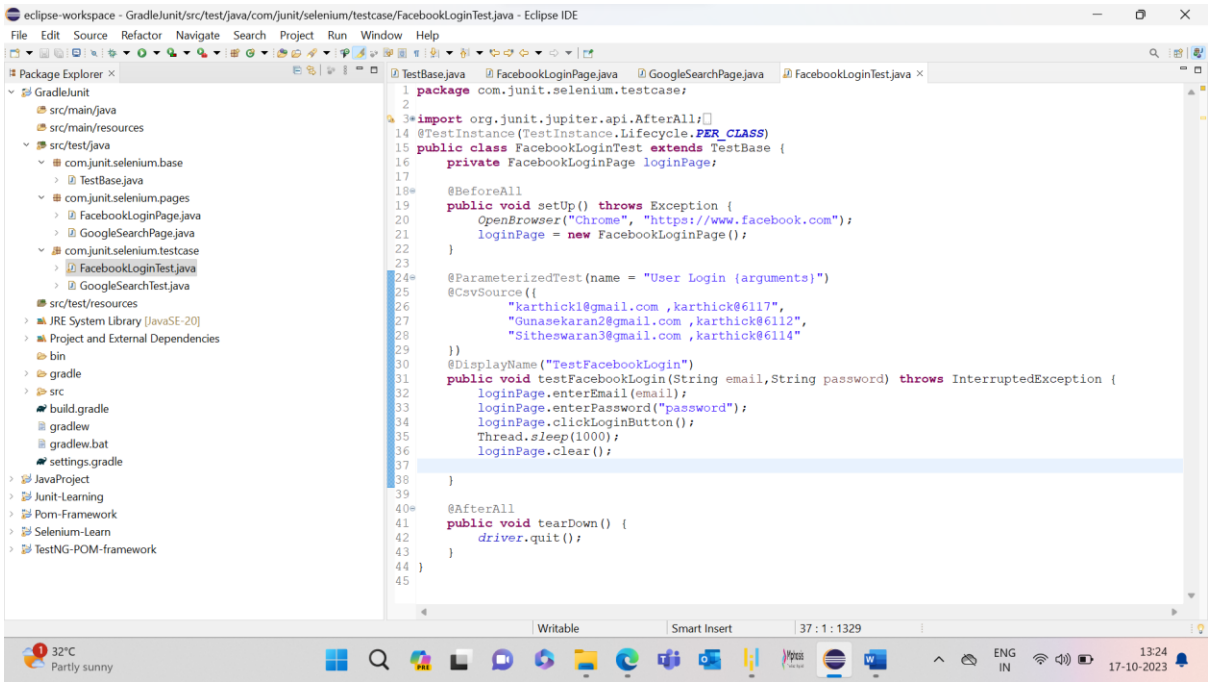
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FacebookLoginTest.java
package com.junit.selenium.testcase;
import org.junit.jupiter.api.AfterAll;
@TestInstance(TestInstance.Lifecycle.PER_CLASS)
public class FacebookLoginTest extends TestBase {
private FacebookLoginPage loginPage;
@BeforeAll
public void setUp() throws Exception {
OpenBrowser("Chrome", "https://www.facebook.com");
loginPage = new FacebookLoginPage();
}
@ParameterizedTest(name = "User Login {arguments}")
@CsvSource({
"karthick1@gmail.com ,karthick@6117",
"Gunasekaran2@gmail.com ,karthick@6112",
"Sitheswaran3@gmail.com ,karthick@6114"
})
@DisplayName("TestFacebookLogin")
public void testFacebookLogin(String email,String password) throws InterruptedException {
loginPage.enterEmail(email);
loginPage.enterPassword("password");
loginPage.clickLoginButton();
Thread.sleep(1000);
loginPage.clear();
}
@AfterAll
public void tearDown() {
driver.quit();
}
}
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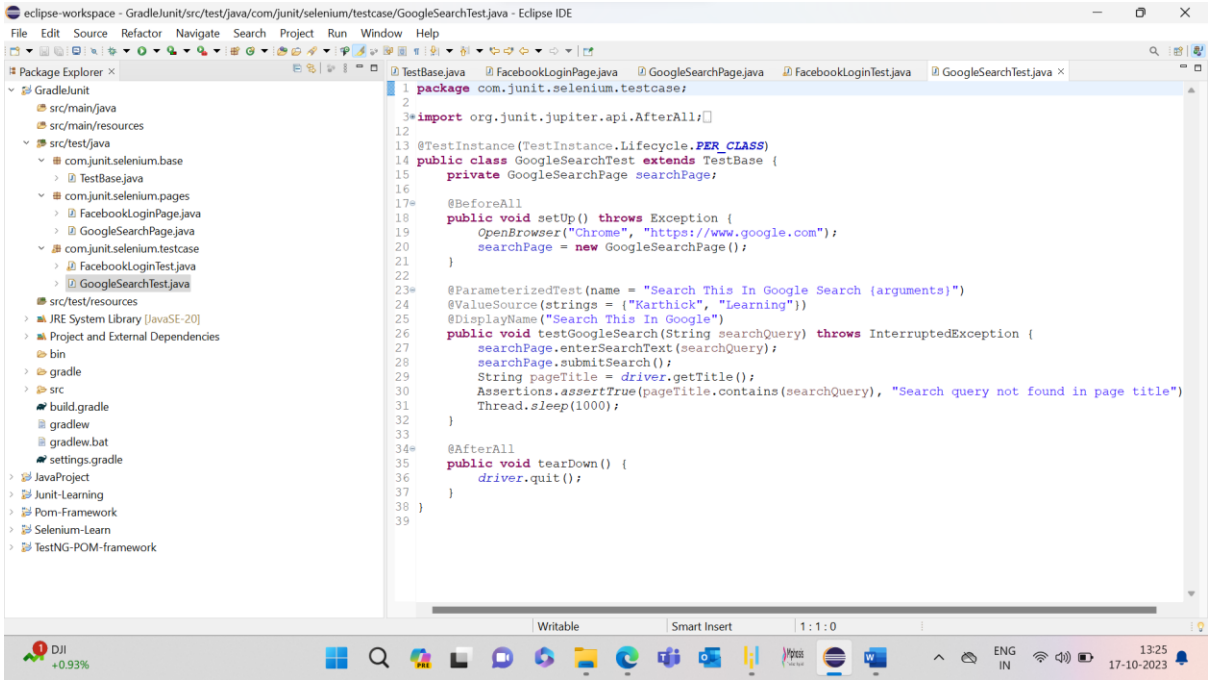
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package com.junit.selenium.testcase;
import org.junit.jupiter.api.AfterAll;
@TestInstance(TestInstance.Lifecycle.PER_CLASS)
public class GoogleSearchTest extends TestBase {
private GoogleSearchPage searchPage;
@BeforeAll
public void setUp() throws Exception {
OpenBrowser("Chrome", "https://www.google.com");
searchPage = new GoogleSearchPage();
}
@ParameterizedTest(name = "Search This In Google Search {arguments}")
@ValueSource(strings = {"Karthick", "Learning"})
@DisplayName("Search This In Google")
public void testGoogleSearch(String searchQuery) throws InterruptedException {
searchPage.enterSearchText(searchQuery);
searchPage.submitSearch();
String pageTitle = driver.getTitle();
Assertions.assertTrue(pageTitle.contains(searchQuery), "Search query not found in page title")
Thread.sleep(1000);
}
@AfterAll
public void tearDown() {
driver.quit();
}
}
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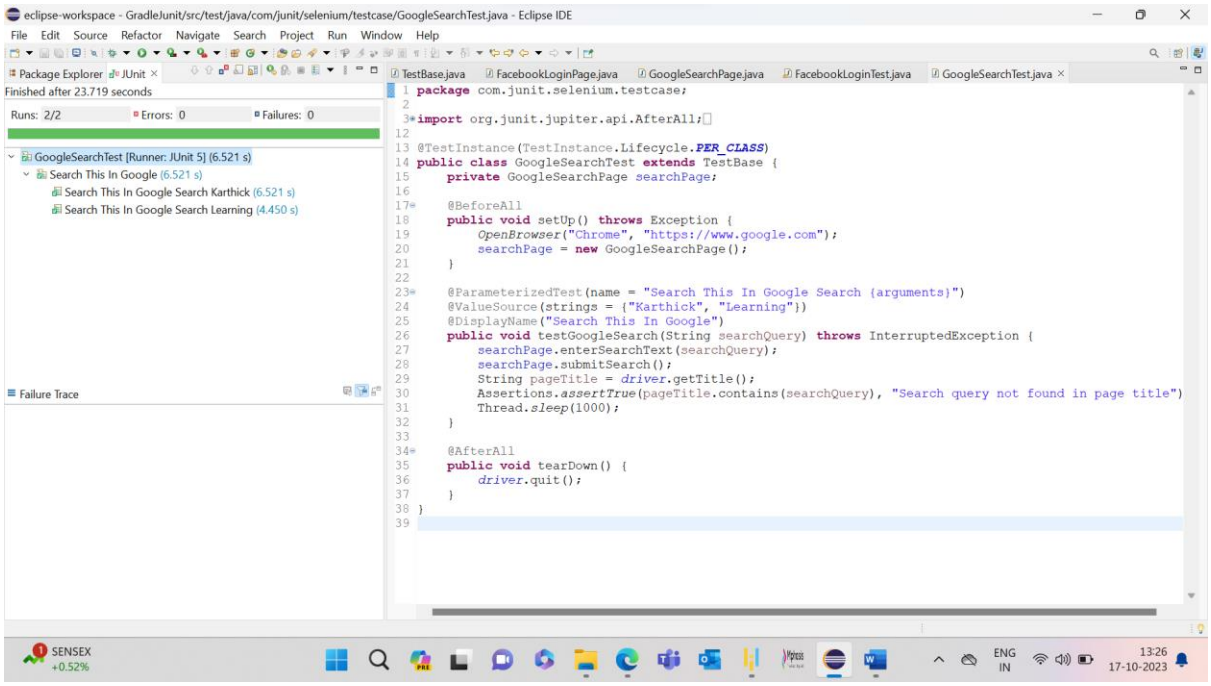

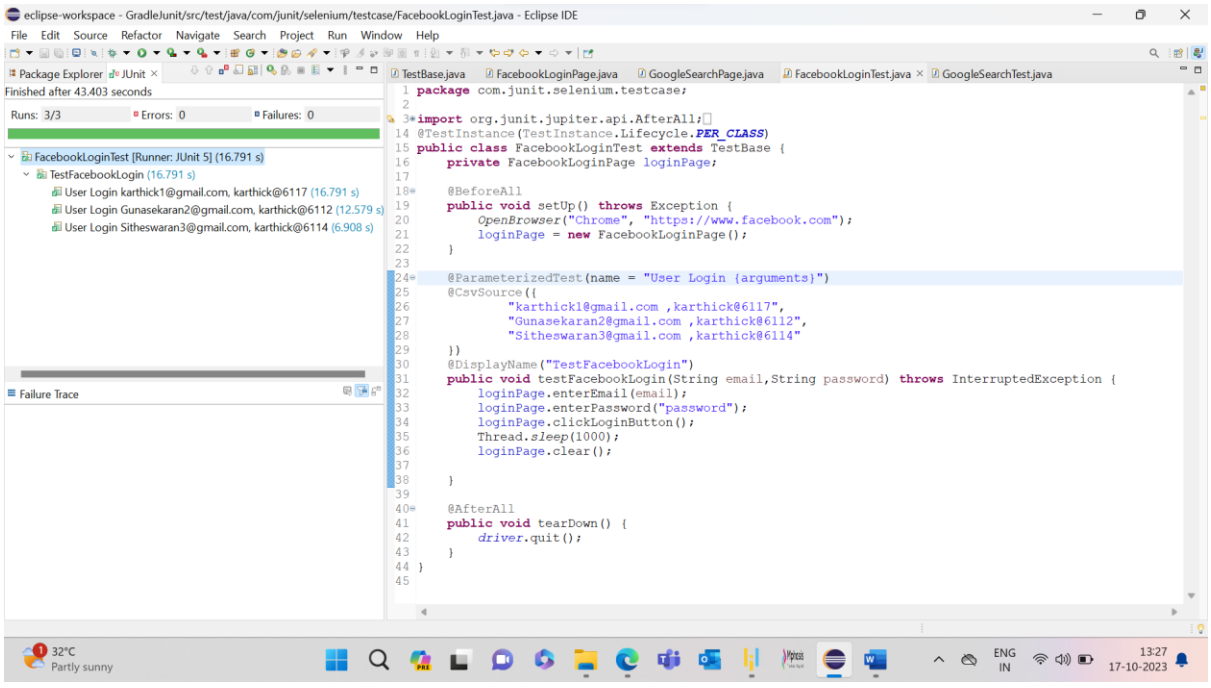

GitHub repository : https://github.com/Karthick-Office/Project01.git

Facebook and Google unit testing: Authentication & Search Project is present under the 'Junit Practice Project' folder in the My GitHub repository