Browser Automation Testing with Selenium and JUnit: Facebook and Google

Introduction:

Browser automation testing is a crucial aspect of ensuring the functionality and reliability of web applications. In this write-up, we will explore how to perform unit testing on two prominent websites, Facebook (a social media platform) and Google (a search engine), using Selenium WebDriver and JUnit.

Prerequisites:

Before getting started, ensure you have the following prerequisites set up:

Java Development Kit (JDK) installed

Selenium WebDriver library added to the project

JUnit library added to the project

ChromeDriver executable available (compatible with your Chrome browser version)

Testing Facebook Login:

Objective: Verify that the login functionality on Facebook works as expected.

Test Setup:

Create a JUnit test class (FacebookTest.java) with @Before, @Test, and @After annotated methods.

Set up the WebDriver (ChromeDriver) in the @Before method.

java

Copy code

@Before

public void setUp() {

System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");

driver = new ChromeDriver();

}

Test Execution:

Navigate to the Facebook login page.

Enter valid login credentials (replace placeholders with actual credentials).

Click the login button.

java

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@Test

public void testLoginToFacebook() {

// Code to navigate to Facebook login page and perform login actions

// Assertions to verify successful login

}

Test Cleanup:

Close the browser in the @After method.

java

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@After

public void tearDown() {

driver.quit();

}

Testing Google Search:

Objective: Confirm that the Google search functionality is functional.

Test Setup:

Create a new JUnit test class (GoogleSearchTest.java) with similar setup steps.

java

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@Before

public void setUp() {

System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");

driver = new ChromeDriver();

}

Test Execution:

Open the Google homepage.

Enter a search query in the search box and submit the form.

java

Copy code

@Test

public void testGoogleSearch() {

// Code to navigate to Google homepage, enter search query, and submit

// Assertions to verify search results

}

Test Cleanup:

Close the browser after the test in the @After method.

java

Copy code

@After

public void tearDown() {

driver.quit();

}