**Source Code**

Dependencies(pom.xml)

<dependencies>

<!-- Selenium WebDriver -->

<dependency>

<groupId>org.seleniumhq.selenium</groupId>

<artifactId>selenium-java</artifactId>

<version>3.141.59</version>

</dependency>

<!-- JUnit -->

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.1</version>

<scope>test</scope>

</dependency>

</dependencies>

Junit TestClasses

// FacebookTest.java

import org.junit.After;

import org.junit.Before;

import org.junit.Test;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class FacebookTest {

private WebDriver driver;

@Before

public void setUp() {

// Set the path to your ChromeDriver executable

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

driver = new ChromeDriver();

}

@Test

public void testLoginToFacebook() {

driver.get("https://www.facebook.com");

// Replace these with your valid Facebook credentials

String username = "your\_username";

String password = "your\_password";

// Find elements and interact with them

driver.findElement(By.id("email")).sendKeys(username);

driver.findElement(By.id("pass")).sendKeys(password);

driver.findElement(By.id("loginbutton")).click();

// Wait for the login to complete (you may need to use WebDriverWait for production)

try {

Thread.sleep(3000);

} catch (InterruptedException e) {

e.printStackTrace();

}

// Assert that the login was successful (add more assertions as needed)

String title = driver.getTitle();

assert title.contains("Facebook") : "Login failed!";

}

@After

public void tearDown() {

// Close the browser window

driver.quit();

}

}

// GoogleSearchTest.java

import org.junit.After;

import org.junit.Before;

import org.junit.Test;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

public class GoogleSearchTest {

private WebDriver driver;

@Before

public void setUp() {

// Set the path to your ChromeDriver executable

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

driver = new ChromeDriver();

}

@Test

public void testGoogleSearch() {

driver.get("https://www.google.com");

// Find the search box and submit a search

WebElement searchBox = driver.findElement(By.name("q"));

searchBox.sendKeys("Selenium WebDriver");

searchBox.submit();

// Wait for search results to load (you may need to use WebDriverWait for production)

try {

Thread.sleep(3000);

} catch (InterruptedException e) {

e.printStackTrace();

}

// Assert that the search results page is displayed (add more assertions as needed)

String title = driver.getTitle();

assert title.contains("Selenium WebDriver") : "Search failed!";

}

@After

public void tearDown() {

// Close the browser window

driver.quit();

}

}