**EXPERIMENT NO.: 10. Install and Explore Selenium for automated testing**

AIM: Install and Explore Selenium for automated testing

DESCRIPTION: Selenium is an open-source, automated testing tool used to test web applications across various browsers. Selenium can test web applications against various browsers like Firefox, Chrome, Opera, and Safari, and these tests can be coded in several programming languages like Java, Python, JavaScript, Perl, PHP, and Ruby.

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To install and explore Selenium for automated testing, follow these steps:

Install Java Development Kit (JDK):

* + Selenium is written in Java, so you'll need to install JDK in order to run it. You can download and install JDK from the official Oracle website.
  + Install the Selenium Web Driver:
  + You can download the latest version of the Selenium Web Driver from the Selenium website. You'll also need to download the appropriate driver for your web browser of choice (e.g. Chrome Driver for Google Chrome).

Install an Integrated Development Environment (IDE):

* + To write and run Selenium tests, you'll need an IDE. Some popular choices include Eclipse, Intelli J IDEA, and Visual Studio Code.
  + Write a simple test:
  + Once you have your IDE set up, you can write a simple test using the Selenium Web Driver.

### Set Up Your Maven Project

1. Create a New Maven Project:
   * Use an IDE like Eclipse to create a new Maven project.
2. Add Dependencies in pom.xml:
   * Include Selenium dependencies and any testing framework (like JUnit) in your pom.xml:
3. The following dependencies must be added to the POM.xml file.

<dependencies><!-- Selenium Java -->

<dependency>

<group Id>org.seleniumhq.selenium</group Id>

<artifact Id>selenium-java</artifact Id>

<version> 4 . 21 . 0 </version>

</dependency><!-- JUnit -->

<dependency><group Id>junit</group Id>

<artifact Id>junit</artifact Id>

<version> 4 . 13 . 2 </version>

<scope>test</scope>

</dependency>

</dependencies>

Task 1 : Write java program to test Google Chrome browser using Chrome driver and download chrome web driver from Google website.

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class DemoAppMain {

public static void main(String[] args)

{

System.setProperty("webdriver.chrome.driver", "C:\\Users\\User\\Downloads\\chromedriver-win64\\chromedriver.exe");

WebDriver driver = new ChromeDriver();

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

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

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

System.out.println(driver.getTitle());

driver.quit();

}

}

Run the test:

Run the test using your IDE or from the command line using the following command:

$ javac DemoAppMain.java

$ java DemoAppMain