Software Testing and Quality Assurance

Assignment 2

Launch browser-Choose browser

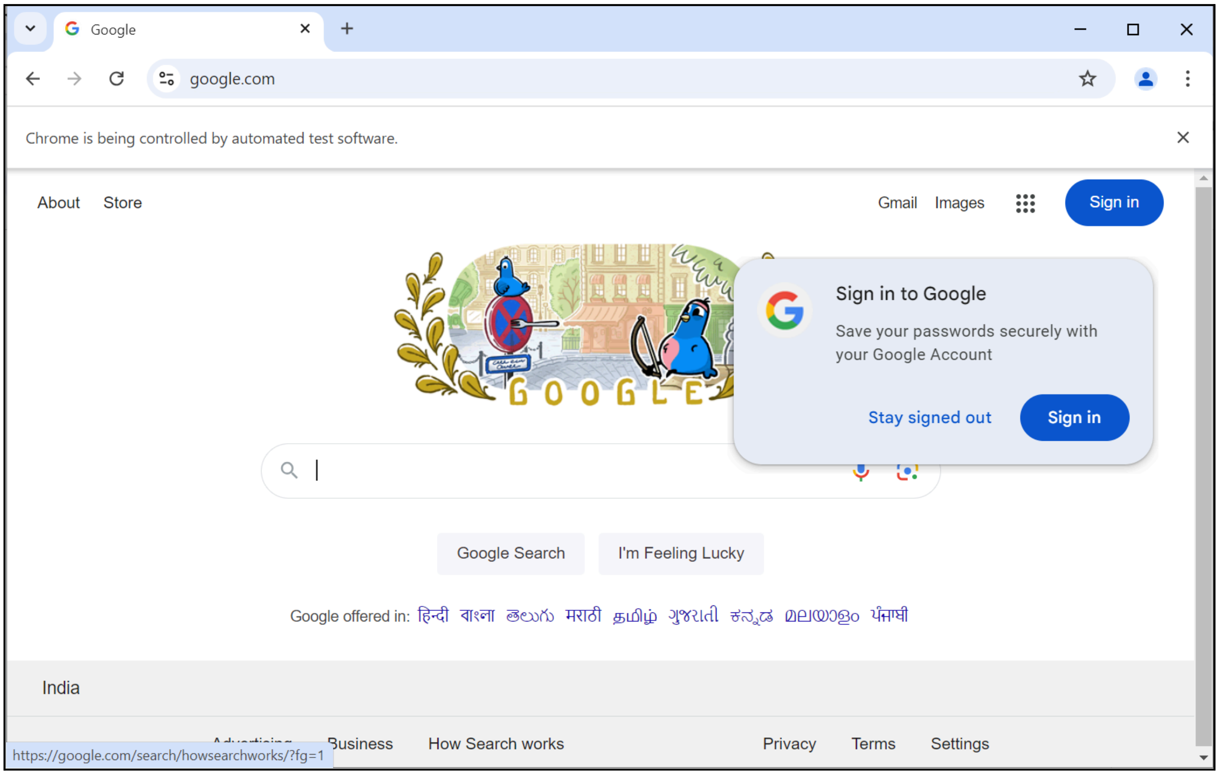
Practical no 1:
Aim: To successfully launch a web browser.

Theory:
Launching a browser is the foundational step in most web-based tasks. A browser serves as the gateway to the internet, enabling users to navigate websites, access online resources, and interact with various web applications. Common browsers include Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari. Each browser has its own set of features, but the basic process of launching them remains consistent across different operating systems.

Code:

```
package siddhipractical;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
public class selproject {
public static void main(String[] args) throws Exception {

System.setProperty("webdriver.chrome.driver","C:\\siddhi\\chromedriver-win64\\chromedriver-win64\\chromedriver.exe"); // 1 Line
WebDriver wd= new ChromeDriver();
wd.get("http://google.com");
        }

}
```

Output:



Chrome is being controlled by automated test software.

Sign in to Google

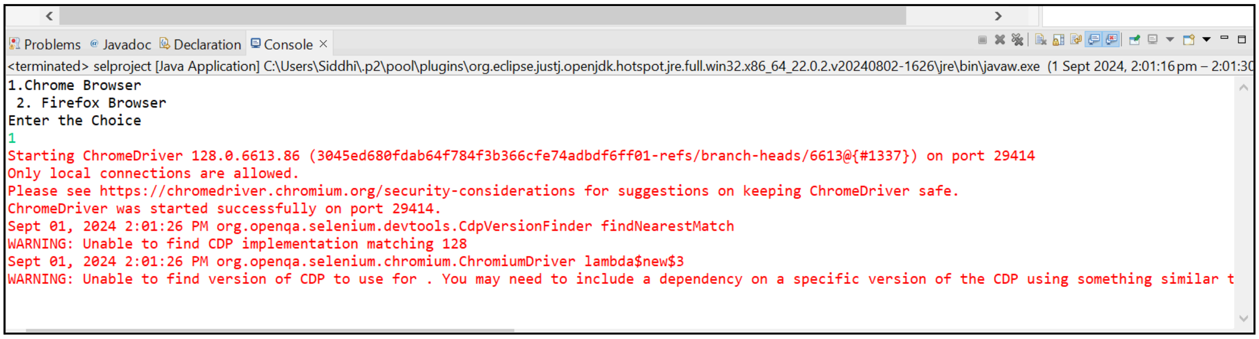
Save your passwords securely with your Google Account

Conclusion:
Successfully launching a browser is a fundamental skill in software testing and quality assurance. It is the first step in interacting with web-based applications, enabling testers to access and evaluate various functionalities.

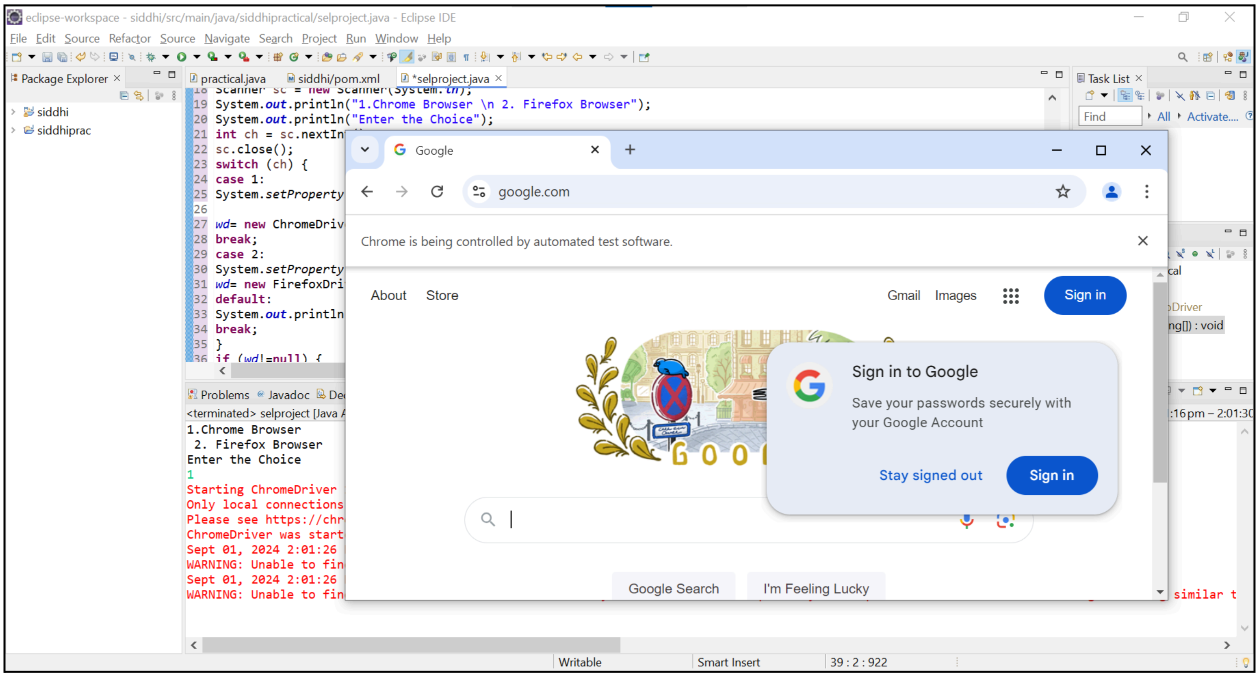
Practical no 2:
Aim: Implement web drivers on Chrome and Firefox browsers.
Theory:
Code:

```
package siddhipractical;
import java.util.Scanner;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
public class selproject {

static WebDriver wd;

public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println("1.Chrome Browser \n 2. Firefox Browser");
System.out.println("Enter the Choice");
int ch = sc.nextInt();
sc.close();
switch (ch) {
case 1:
System.setProperty("webdriver.chrome.driver","C:\\siddhi\\chromedriver-win64\\chromedriver-win64\\chromedriver.exe"); // 1 Line
wd= new ChromeDriver();
break;
case 2:
System.setProperty("webdriver.gecko.driver","C:\\siddhi\\geckodriver.exe"); // 1 Line
wd= new FirefoxDriver();
default:
System.out.println("Invalid Choice");
break;
}
if (wd!=null) {
wd.get("http:\\google.com");
}
}
}
```

Output:



```
<terminated> selproject [Java Application] C:\Users\Siddhi\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.2.v20240802-1626\jre\bin\javaw.exe  (1 Sept 2024, 2:01:16 pm – 2:01:30
1.Chrome Browser
 2. Firefox Browser
Enter the Choice
1
Starting ChromeDriver 128.0.6613.86 (3045ed680fdab64f784f3b366cfe74adbdf6ff01-refs/branch-heads/6613@{#1337}) on port 29414
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully on port 29414.
Sept 01, 2024 2:01:26 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find CDP implementation matching 128
Sept 01, 2024 2:01:26 PM org.openqa.selenium.chromium.ChromiumDriver lambda$new$3
WARNING: Unable to find version of CDP to use for . You may need to include a dependency on a specific version of the CDP using something similar t
```



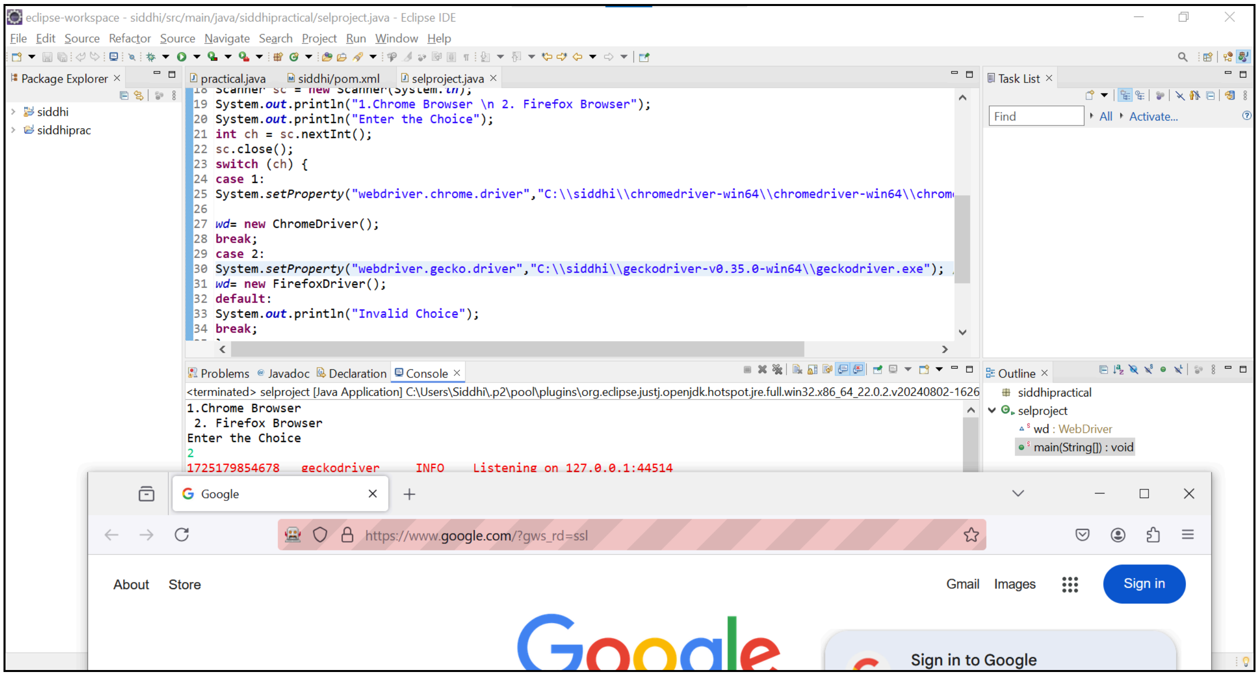
```
Scanner sc = new Scanner(System.in);
System.out.println("1.Chrome Browser \n 2. Firefox Browser");
System.out.println("Enter the Choice");
int ch = sc.nextIn
sc.close();
switch (ch) {
case 1:
System.setProperty

wd= new ChromeDriv
break;
case 2:
System.setProperty
wd= new FirefoxDri
default:
System.out.println
break;
}
if (wd!=null) {
```

Chrome is being controlled by automated test software.

Sign in to Google

Save your passwords securely with your Google Account

```
<terminated> selproject [Java A
1.Chrome Browser
 2. Firefox Browser
Enter the Choice
1
Starting ChromeDriver
Only local connections
Please see https://chr
ChromeDriver was start
Sept 01, 2024 2:01:26
WARNING: Unable to fin
Sept 01, 2024 2:01:26
WARNING: Unable to fin
```



```
Scanner sc = new Scanner(System.in);
System.out.println("1.Chrome Browser \n 2. Firefox Browser");
System.out.println("Enter the Choice");
int ch = sc.nextInt();
sc.close();
switch (ch) {
case 1:
System.setProperty("webdriver.chrome.driver","C:\\siddhi\\chromedriver-win64\\chromedriver-win64\\chrom

wd= new ChromeDriver();
break;
case 2:
System.setProperty("webdriver.gecko.driver","C:\\siddhi\\geckodriver-v0.35.0-win64\\geckodriver.exe");
wd= new FirefoxDriver();
default:
System.out.println("Invalid Choice");
break;
```

```
<terminated> selproject [Java Application] C:\Users\Siddhi\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.2.v20240802-1626
1.Chrome Browser
 2. Firefox Browser
Enter the Choice
2
1725179854678   geckodriver     INFO    Listening on 127.0.0.1:44514
```

https://www.google.com/?gws_rd=ssl

Conclusion:

This demonstrates the setup and use of Selenium WebDriver to automate browser actions in Chrome and Firefox. By correctly configuring web drivers, testers can efficiently execute cross-browser tests, ensuring consistent application performance across different environments. This foundational skill is crucial for effective and reliable automated testing.