

Software Testing EPAM – ASSIGNMENT SKILL WEEK

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S12

EPAM QUESTIONS

1. Write a selenium code for inspecting using all locators.

Code:

```
package org.example;

import org.testng.Assert;
import org.testng.annotations.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import io.github.bonigarcia.wdm.WebDriverManager;

public class StaticLocators {

    @Test
    public void testSearchGoogle() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.google.co.in/");

        WebElement searchBox = driver.findElement(By.name("q"));
        searchBox.sendKeys("Selenium testing");
        searchBox.submit();

        WebElement results = driver.findElement(By.id("result-stats"));
        Assert.assertTrue(results.isDisplayed(), "Search results not displayed");

        driver.quit();
    }

    @Test
    public void testGoogleLogo() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.google.co.in/");

        WebElement logo = driver.findElement(By.className("lnXdpd"));
        Assert.assertTrue(logo.isDisplayed(), "Google logo not displayed");

        driver.quit();
    }

    @Test
    public void testGoogleImages() {
        WebDriver driver;
```

```

        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        drive package org.example;

import org.testng.Assert;
import org.testng.annotations.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import io.github.bonigarcia.wdm.WebDriverManager;

public class StaticLocators {

    @Test
    public void testSearchGoogle() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.google.co.in/");

        WebElement searchBox = driver.findElement(By.name("q"));
        searchBox.sendKeys("Selenium testing");
        searchBox.submit();

        WebElement results = driver.findElement(By.id("result-stats"));
        Assert.assertTrue(results.isDisplayed(), "Search results not
displayed");

        driver.quit();
    }

    @Test
    public void testGoogleLogo() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.google.co.in/");

        WebElement logo = driver.findElement(By.className("lnXdpd"));
        Assert.assertTrue(logo.isDisplayed(), "Google logo not displayed");

        driver.quit();
    }

    @Test
    public void testGoogleImages() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.google.co.in/");

        WebElement imagesLink = driver.findElement(By.linkText("Images"));
        imagesLink.click();

        String expectedTitle = "Google Images";
        String actualTitle = driver.getTitle();
        Assert.assertEquals(actualTitle, expectedTitle, "Not on the Google
Images page");

        driver.quit();
    }
}

```

```

    }
}r.get("https://www.google.co.in/");

WebElement imagesLink = driver.findElement(By.linkText("Images"));
imagesLink.click();

String expectedTitle = "Google Images";
String actualTitle = driver.getTitle();
Assert.assertEquals(actualTitle, expectedTitle, "Not on the Google
Images page");

    driver.quit();
}
}

```

Output:

The screenshot shows the Selenium IDE Run window for the test 'testGoogleImages'. The test passed successfully. The output log shows the following details:

```

Run StaticLocators.testGoogleImages
Default Suite 8 sec 744 ms
SVV 8 sec 744 ms
StaticLocators 8 sec 744 ms
testGoogleImages 8 sec 744 ms
Tests passed: 1 of 1 test - 8 sec 744 ms
Read port: 58067
1706935301121 RemoteAgent WARN TLS certificate errors will be ignored for this session
DevTools listening on ws://127.0.0.1:29840/devtools/browser/9ba4e311-51ef-41f1-9a3e-647a79976062
1706935306717 RemoteAgent INFO Perform WebSocket upgrade for incoming connection from 127.0.0.1:58106
1706935306727 CDP WARN Invalid browser preferences for CDP. Set "fission.webContentIsolationStrategy" to 0 and "fission.bfcacheInParent"
1706935306763 Marionette INFO Stopped listening on port 58067
Dynamically enable window occlusion 1
=====
Default Suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
Process finished with exit code 0

```

2. Write a selenium code to login one website using credentials and logout.

Code:

```

package Lab;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;

public class LmsLogin {
    public static void main(String[] args)
    {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://www.amazon.com");

        WebElement signInButton = driver.findElement(By.id("nav-link-accountList"));
        signInButton.click();

        WebElement emailField = driver.findElement(By.id("ap_email"));
        emailField.sendKeys("*****");

        WebElement continueButton =
        driver.findElement(By.id("continue"));
        continueButton.click();
    }
}

```

```

        WebElement passwordField =
driver.findElement(By.id("ap_password"));
passwordField.sendKeys("*****");

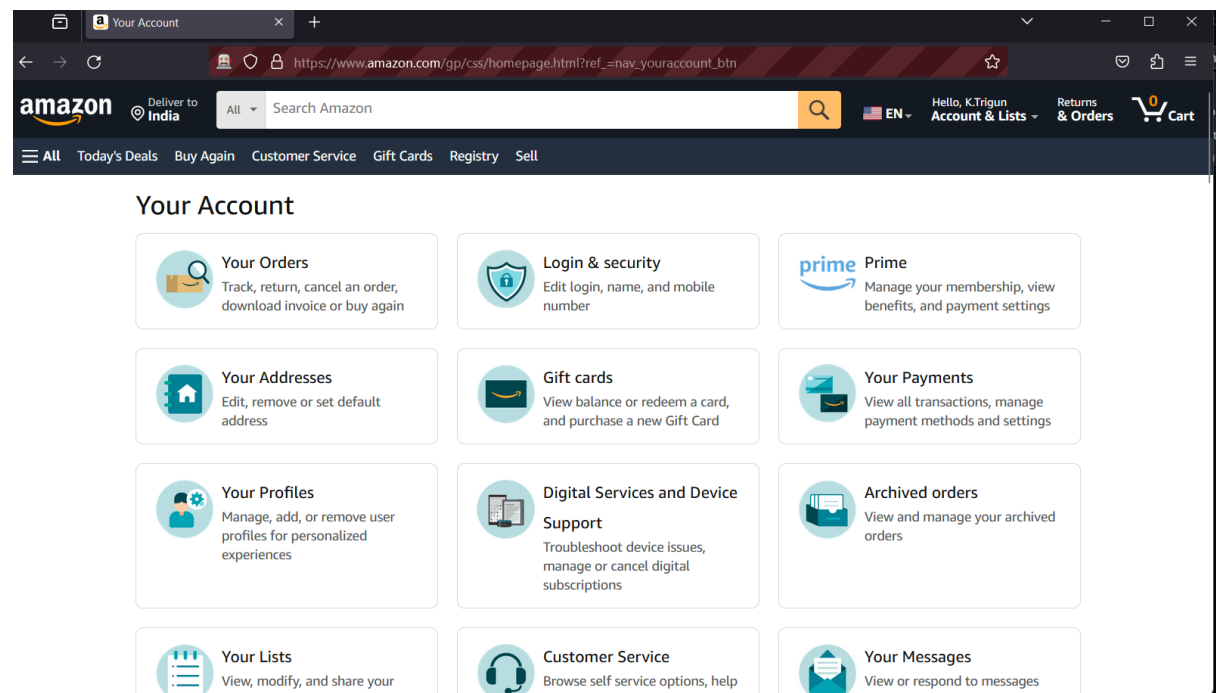
        WebElement signInSubmitButton =
driver.findElement(By.id("signInSubmit"));
signInSubmitButton.click();

        WebElement accountList = driver.findElement(By.id("nav-link-
accountList"));
accountList.click();

        WebElement signOutButton = driver.findElement(By.id("nav-item-
signout"));
signOutButton.click();
    }
}

```

Output:



3. Write a program to open one website and locate static dropdown box and click one option out of it.

Code:

```

package org.example;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.apache.commons.io.FileUtils;
import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.support.ui.Select;
import java.io.File;
import java.io.IOException;
import java.util.List;

```

```

public class DropdownExamples {
    public static void main(String[] args) throws InterruptedException,
IOException ,Exception {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.manage().window().maximize();
        driver.get("https://www.hyrtutorials.com/p/html-dropdown-elements-
practice.html");
        Thread.sleep(2000);

        // SINGLE SELECTION DROP DOWN
        WebElement courseElement = driver.findElement(By.id("course"));
        Select courseNameDropdown = new Select(courseElement);
        List<WebElement> courseNameDropDownOptions =
courseNameDropdown.getOptions();

        for (WebElement option : courseNameDropDownOptions) {
            System.out.println(option.getText());
        }
        courseNameDropdown.selectByIndex(1);
        Thread.sleep(1000);
        courseNameDropdown.selectByVisibleText("Java");
        TakesScreenshot ts = (TakesScreenshot)driver;
        File file = ts.getScreenshotAs(OutputType.FILE);
        FileUtils.copyFile(file,new File("./Screen/Image2.png"));
        Thread.sleep(2000);
        courseNameDropdown.selectByValue("python");
        File fil = ts.getScreenshotAs(OutputType.FILE);
        FileUtils.copyFile(fil,new File("./Screen/Image3.png"));
        String selectedText =
courseNameDropdown.getFirstSelectedOption().getText();
        System.out.println("Selected visible text: " + selectedText);
        // MULTIPLE SELECTION DROP DOWN EXAMPLE
        WebElement ideElement = driver.findElement(By.id("ide"));
        Select ideDropDown = new Select(ideElement);
        List<WebElement> ideDropDownOptions = ideDropDown.getOptions();
        for (WebElement option : ideDropDownOptions) {
            System.out.println(option.getText());
        }
        ideDropDown.selectByIndex(0);
        ideDropDown.selectByValue("ij");
        ideDropDown.selectByVisibleText("NetBeans");
        ideDropDown.deselectByVisibleText("IntelliJ IDEA");
        File fi = ts.getScreenshotAs(OutputType.FILE);
        FileUtils.copyFile(fi,new File("./Screen/Image4.png"));

        List<WebElement> selectedOptions =
ideDropDown.getAllSelectedOptions();

        for (WebElement selectedOption : selectedOptions) {
            System.out.println("Selected visible text: " +
selectedOption.getText());
        }
    }
}

```

Output:

HTML Dropdowns

In HTML we have dropdown controls we use very often, There are two types of dropdown available.

1. Single-Selection Dropdown
2. Multi-Selection Dropdown

This page can be used for practicing the above controls using selenium.

Course Name:

IDE Name:

Here the **Course Name** dropdown is a single-selection dropdown and **IDE Name** dropdown is a multi-selection dropdown.

4. Write a program to open one website and locate autosuggestion dropdown box and click one option out of it.

Code:

```
package Lab;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.support.ui.Select;

import java.util.List;

public class multipledropDown {
    public static void main(String[] args) throws Exception {

        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.manage().window().maximize();
        driver.get("https://www.hyrtutorials.com/p/html-dropdown-elements-practice.html");
        Thread.sleep(2000);

        // MULTIPLE SELECTION DROP DOWN EXAMPLE
        WebElement ideElement = driver.findElement(By.id("ide"));
        Select ideDropDown = new Select(ideElement);
        ideDropDown.selectByIndex(0);
    }
}
```

```

        ideDropDown.selectByValue("ij");
        ideDropDown.selectByVisibleText("NetBeans");
        ideDropDown.deselectByVisibleText("IntelliJ IDEA");
        List<WebElement> selectedOptions =
ideDropDown.getAllSelectedOptions();
        for (WebElement selectedOption : selectedOptions) {
            System.out.println("Selected visible text---" +
selectedOption.getText());
        }
    }
}

```

Output:

```

Run
multipledropDown x
JavaScript warning: https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js line 2 > eval line 1 > eval line 1 > eval, line 1: 1
JavaScript warning: https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js line 2 > eval line 1 > eval line 1 > eval, line 1: 1
JavaScript warning: https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js line 2 > eval line 1 > eval line 1 > eval, line 1: 1
Selected visible text---Eclipse
Selected visible text---NetBeans
Process finished with exit code 0

```

5. Write a program to click one check box in the website and count the number of checkboxes in that site.

code:

```

6. package org.example;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.junit.jupiter.api.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;

public class checkBox {
    @Test
    public void test() {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://demoqa.com/automation-practice-form");
        driver.manage().window().maximize();

        WebElement checkBoxSelected =
driver.findElement(By.cssSelector("label[for='hobbies-checkbox-1']"));
        boolean isSelected = checkBoxSelected.isSelected();
        if(!isSelected) {
            checkBoxSelected.click();
        }

        WebElement checkBoxDisplayed =
driver.findElement(By.cssSelector("label[for='hobbies-checkbox-1']"));
        boolean isDisplayed = checkBoxDisplayed.isDisplayed();
        // performing click operation if element is displayed
    }
}

```

```

        if (isDisplayed) {
            checkBoxDisplayed.click();
        }

        WebElement checkBoxEnabled =
driver.findElement(By.cssSelector("label[for='hobbies-checkbox-1']"));
        boolean isEnabled = checkBoxEnabled.isEnabled();

        if (isEnabled) {
            checkBoxEnabled.click();
        }
    }
}

```

Output:

6. Write a program to do the particular action: login into website using user credential, delete the session cookie, then click any one link in the home page to experience the session logout.

Code:

```

package Lab;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;

public class amazonsignout {
    public static void main(String[] args) {
        System.setProperty("webdriver.gecko.driver",
"path_to_geckodriver");
        WebDriver driver = new FirefoxDriver();
        driver.get("https://www.amazon.com");
    }
}

```



```

        WebElement signInLink = driver.findElement(By.id("nav-link-accountList"));
        signInLink.click();

        WebElement emailField = driver.findElement(By.id("ap_email"));
        emailField.sendKeys("*****");

        WebElement continueButton = driver.findElement(By.id("continue"));
        continueButton.click();

        WebElement passwordField =
driver.findElement(By.id("ap_password"));
        passwordField.sendKeys("*****");

        WebElement signInButton =
driver.findElement(By.id("signInSubmit"));
        signInButton.click();

        WebElement accountListLink = driver.findElement(By.id("nav-link-accountList"));
        accountListLink.click();

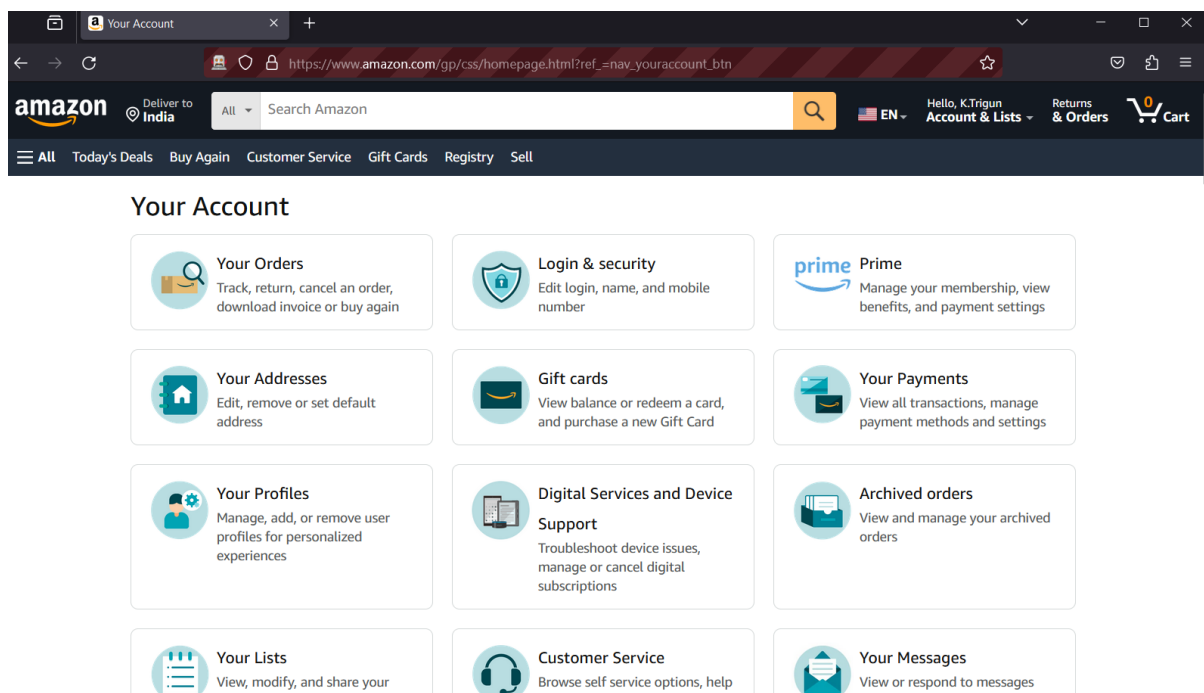
        WebElement signOutButton = driver.findElement(By.id("nav-item-signout"));
        signOutButton.click();

        driver.manage().deleteAllCookies();

        driver.quit();
    }
}

```

Output:



7. Write a selenium code to select current date in the calendar UI.

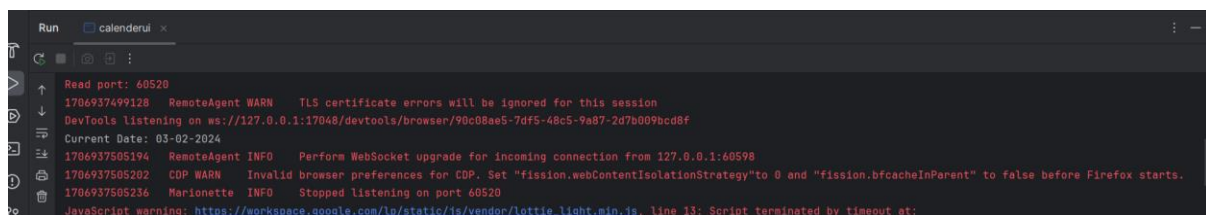
Code:

```
package Lab;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;

public class calenderui {
    public static void main(String[] args) {
        WebDriverManager.firefoxdriver().setup();
        WebDriver driver = new FirefoxDriver();
        driver.get("https://calendar.google.com");
        WebElement currentDateElement =
driver.findElement(By.xpath("//div[contains(@class,'xY') and
contains(@class,'x1')]"));
        String currentDate = currentDateElement.getText();
        System.out.println("Current Date: " + currentDate);
        driver.quit();
    }
}
```

Output:



8. Write a selenium code to take screenshot of navigated web page.

Code:

```
package org.example;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.apache.commons.io.FileUtils;
import org.openqa.selenium.By;
import org.openqa.selenium.OutputType;
import org.openqa.selenium.TakesScreenshot;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;

import java.io.File;
import java.io.IOException;

public class Skill2src {

    public static void main(String[] args) throws IOException {
        WebDriver driver;
        WebDriverManager.firefoxdriver().setup();
        driver = new FirefoxDriver();
        driver.get("https://amazon.in");
        driver.findElement(By.id("twotabsearchtextbox")).sendKeys("dell");
        driver.findElement(By.id("nav-search-submit-button")).submit();
    }
}
```

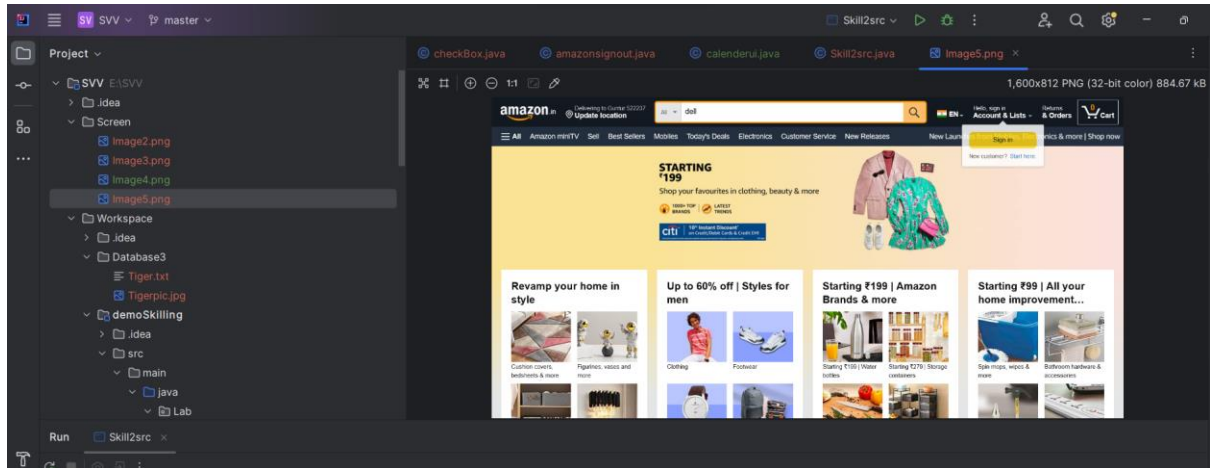
```

    TakesScreenshot ts = (TakesScreenshot)driver;
    File file = ts.getScreenshotAs(OutputType.FILE);
    FileUtils.copyFile(file,new File("./Screen/Image1.png"));

}
}

```

Output:



9. Write a selenium code to 1. accept the alert message 2. discard the alert message

Code:

```

package Lab;

import org.openqa.selenium.By;
import io.github.bonigarcia.wdm.WebDriverManager;
import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.testng.annotations.Test;
import java.util.*;

public class demoAlerts1 {
    public static void main(String args[]) throws Exception
    {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Select the appropriate number based on your choice");
        System.out.println("1. Simple Alert");
        System.out.println("2. Confirm Alert");
        System.out.println("3. Prompt Alert");
        System.out.println("Please select one number from the above to view to alert message from the browser");

        int select;
        select = scanner.nextInt();

        switch (select)
        {
            case 1:
                simplealert();
                break;

```

```

        case 2:
            confirmalert();
            break;
        case 3:
            promptalert();
            break;
        default:
            System.out.println("This is not a case that you must
select");
            break;
    }

}

private static void simplealert()
{
    WebDriver driver;
    WebDriverManager.firefoxdriver().setup();
    driver = new FirefoxDriver();
    driver.manage().window().maximize();

    driver.get("https://www.hyrtutorials.com/p/alertsdemo.html");
    driver.findElement(By.id("alertBox")).click();
    System.out.println(driver.switchTo().alert().getText());
    driver.switchTo().alert().accept();
    System.out.println(driver.findElement(By.id("output")).getText());
}

private static void confirmalert() throws Exception
{
    WebDriver driver;
    WebDriverManager.firefoxdriver().setup();
    driver = new FirefoxDriver();
    driver.manage().window().maximize();

    driver.get("https://www.hyrtutorials.com/p/alertsdemo.html");

    System.out.println(driver.findElement(By.id("output")).getText());
    Thread.sleep(2000);
    driver.findElement(By.id("confirmBox")).click();
    Thread.sleep(2000);
    System.out.println(driver.switchTo().alert().getText());
    Thread.sleep(2000);
    driver.switchTo().alert().accept();
    Thread.sleep(2000);
    System.out.println(driver.findElement(By.id("output")).getText());
    System.out.println(driver.findElement(By.id("output")).getText());
    Thread.sleep(2000);
    driver.findElement(By.id("confirmBox")).click();
    Thread.sleep(2000);
    System.out.println(driver.switchTo().alert().getText());
    Thread.sleep(2000);
    driver.switchTo().alert().dismiss();
    Thread.sleep(2000);
    System.out.println(driver.findElement(By.id("output")).getText());
}

```

```

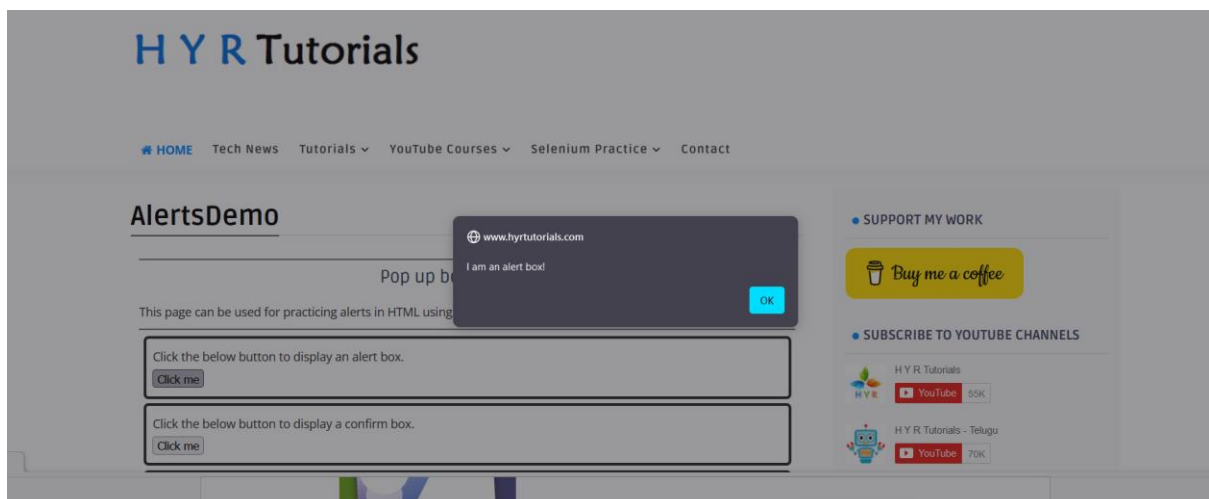
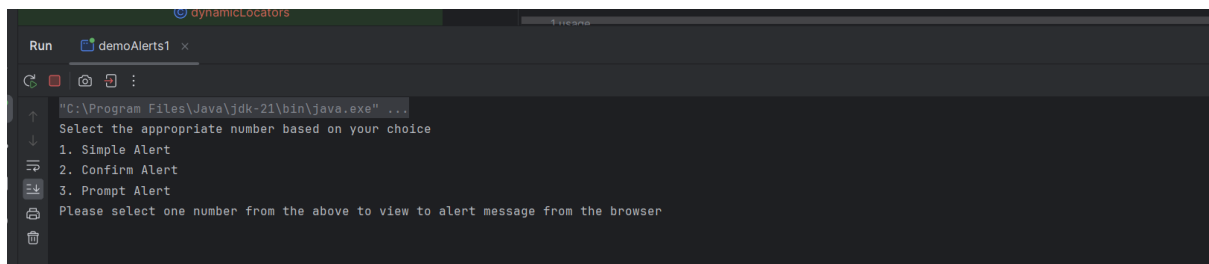
}

private static void promptAlert() throws Exception
{
    WebDriver driver;
    WebDriverManager.firefoxdriver().setup();
    driver = new FirefoxDriver();
    driver.manage().window().maximize();
    driver.get("https://www.hyrtutorials.com/p/alertsdemo.html");

    System.out.println(driver.findElement(By.id("output")).getText());
    Thread.sleep(2000);
    driver.findElement(By.id("promptBox")).click();
    Thread.sleep(2000);
    System.out.println(driver.switchTo().alert().getText());
    Thread.sleep(2000);
    driver.switchTo().alert().sendKeys("Trigun");
    driver.switchTo().alert().accept();
    Thread.sleep(2000);
    System.out.println(driver.findElement(By.id("output")).getText());
    driver.findElement(By.id("promptBox")).click();
    System.out.println(driver.switchTo().alert().getText());
    Thread.sleep(2000);
    driver.switchTo().alert().dismiss();
    Thread.sleep(2000);
    System.out.println(driver.findElement(By.id("output")).getText());
    Thread.sleep(2000);
}
}

```

Output:



10. Write a selenium code to count the number of links in the website footer page.

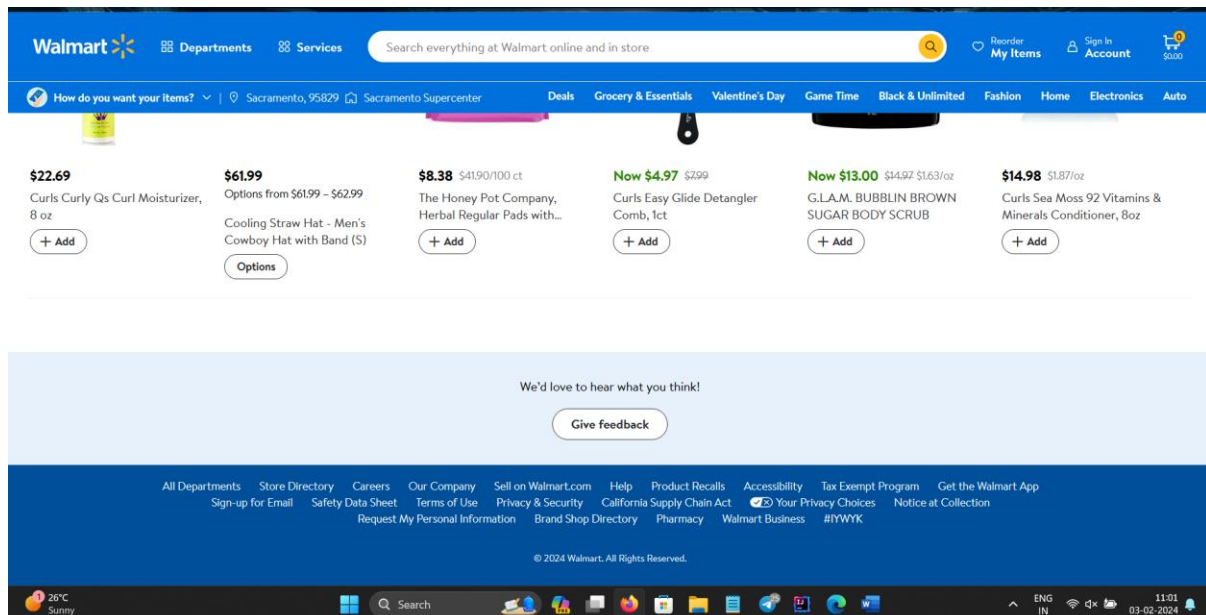
Code:

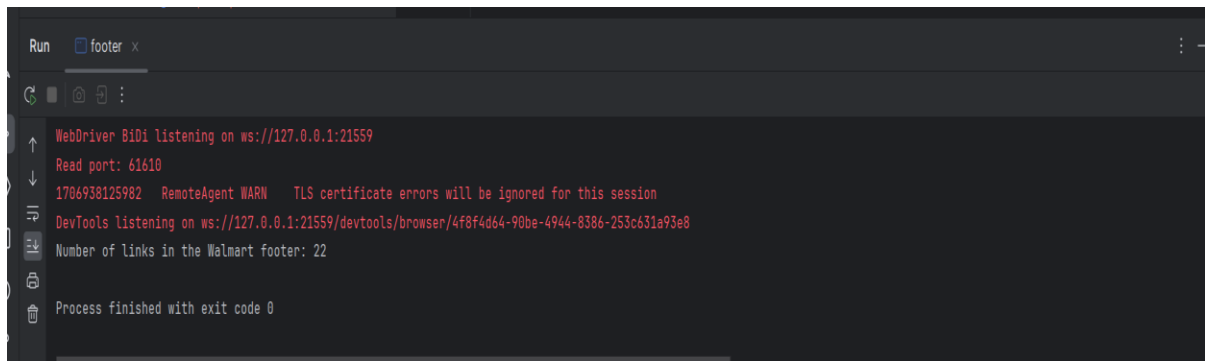
```
package Lab;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import java.util.List;
import java.util.concurrent.TimeUnit;

public class footer {
    public static void main(String[] args) {
        WebDriver driver = new FirefoxDriver();
        driver.manage().window().maximize();
        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
        driver.get("https://www.walmart.com/");
        WebElement footer = driver.findElement(By.xpath("//footer"));
        List footerLinks =
        footer.findElements(By.tagName("a"));
        int numberOfFooterLinks = footerLinks.size();
        System.out.println("Number of links in the Walmart footer: " +
        numberOfFooterLinks);
    }
}
```

Output:





11. Write a selenium code to extract particular word from the displayed sentence that taken from the website using appropriate automated actions.

code:

```
12. package Lab;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import java.util.concurrent.TimeUnit;

public class wordextract {
    public static void main(String[] args) {
        WebDriver driver = null;
        try {
            driver = new FirefoxDriver();
            driver.manage().window().maximize();
            driver.manage().timeouts().implicitlyWait(10,
TimeUnit.SECONDS);

            driver.get("https://www.wikipedia.org/");

            WebElement searchBox =
driver.findElement(By.id("searchInput"));
            searchBox.sendKeys("education");
            searchBox.submit();

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

            WebElement paragraph =
driver.findElement(By.xpath("//div[@class='mw-parser-
output']/p[1]"));
            String text = paragraph.getText();

            String targetWord = "knowledge";

            if (text.contains(targetWord)) {
                System.out.println("Extracted word: " + targetWord);
            } else {
                System.out.println("The word \"" + targetWord + "\"
is not found in the sentence.");
            }
        } catch (Exception e) {
            e.printStackTrace();
        } finally {
            if (driver != null) {
```

```

        driver.quit();
    }
}
}
}

```

Output:

The screenshot shows the Wikipedia page for 'Education'. The page header includes the Wikipedia logo, a search bar, and links for 'Create account' and 'Log in'. Below the header is a banner for 'WIN! Loves FOLKLORE' with a photo of a group of people. The main content area is titled 'Education' and includes a table of contents on the left. The table of contents lists sections such as 'Definitions', 'Types', 'Formal, non-formal, and informal', 'Levels', 'Others', 'Role in society', 'Role of institutions', 'Factors of educational success', 'Psychological', 'Sociological', 'Technology and others', 'Education studies', 'Subfields', 'Aims and ideologies', and 'Learning theories and teaching'. The main text of the article discusses the transmission of knowledge, skills, and character traits, and mentions various forms of education like formal, non-formal, and informal education. It also mentions that education is a wide phenomenon that applies to all age groups and covers formal education (top row) as well as non-formal and informal education (bottom row).

12. Write a selenium code to automate the following actions: 1. mouse move over 2. type text with case sensitive (pressing shift key action) 3. drag and drop.

Code:

```

package Lab;

import io.github.bonigarcia.wdm.WebDriverManager;
import org.openqa.selenium.By;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;

public class automate {
    public static void main(String[] args) {
        WebDriver driver;
        System.out.println("testing on open browser");
        WebDriverManager.firefoxdriver();
        driver = new FirefoxDriver();
        driver.get("https://www.amazon.org");
        System.out.println(driver.getTitle());
        Actions an=new Actions(driver);
        Actions actions =
an.moveToElement(driver.findElement(By.cssSelector("div.nav-line-1-
container")));
        an.keyDown(Keys.SHIFT).sendKeys("bluetooth").build().perform();
    }
}

```



```

an.moveToElement(driver.findElement(By.cssSelector("input#twotabsearchtextbox"))).click().keyDown(Keys.SHIFT).sendKeys("bluetooth").build().perform();
    }
}

```

Output:

