Assignment 1 – Action Class

Objective: Practice mouse and keyboard interactions.

Scenario:

Open the DemoQA site → https://demoqa.com/buttons

Perform:

Double Click on “Double Click Me” button.

Right Click on “Right Click Me” button.

Single Click on the third “Click Me” button.

Print the text messages that appear after each click action.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;

public class ButtonActions {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/buttons");

        Actions actions = new Actions(driver);

        WebElement doubleClickBtn = driver.findElement(By.id("doubleClickBtn"));
        actions.doubleClick(doubleClickBtn).perform();
        WebElement doubleClickMsg = driver.findElement(By.id("doubleClickMessage"));
        System.out.println(doubleClickMsg.getText());
```

```
        WebElement rightClickBtn = driver.findElement(By.id("rightClickBtn"));
        actions.contextClick(rightClickBtn).perform();
        WebElement rightClickMsg = driver.findElement(By.id("rightClickMessage"));
        System.out.println(rightClickMsg.getText());

        WebElement singleClickBtn = driver.findElements(By.xpath("//button[text()='Click Me']")).get(2);
        singleClickBtn.click();
        WebElement singleClickMsg = driver.findElement(By.id("dynamicClickMessage"));
        System.out.println(singleClickMsg.getText());

        driver.quit();
    }
}
```

Extra Challenge:

Visit https://demoqa.com/dragabble and drag the element from its position to another point.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;

public class DragChallenge {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
```

```
        driver.get("https://demoqa.com/dragabble");

        WebElement dragBox = driver.findElement(By.id("dragBox"));
        Actions actions = new Actions(driver);
        actions.dragAndDropBy(dragBox, 150, 100).perform();

        driver.quit();
    }
}
```

Assignment 2 – Select Class

Objective: Work with dropdowns and multi-select options.

Scenario:

Open the DemoQA site → https://demoqa.com/select-menu

Perform:

Select “Blue” from the old-style dropdown.

Select multiple options from the multi-select dropdown (e.g., “Green”, “Yellow”, “Black”).

Verify and print the selected options.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import java.util.List;

public class SelectMenuAssignment {
    public static void main(String[] args) {
```

```
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/select-menu");

        Select oldStyleSelect = new Select(driver.findElement(By.id("oldSelectMenu")));
        oldStyleSelect.selectByVisibleText("Blue");
        WebElement selectedOldOption = oldStyleSelect.getFirstSelectedOption();
        System.out.println("Old Style Selected: " + selectedOldOption.getText());

        Select multiSelect = new Select(driver.findElement(By.id("cars")));
        multiSelect.selectByVisibleText("Green");
        multiSelect.selectByVisibleText("Yellow");
        multiSelect.selectByVisibleText("Black");
        List<WebElement> selectedOptions = multiSelect.getAllSelectedOptions();
        System.out.print("Multi-Select Chosen: ");
        for (WebElement option : selectedOptions) {
            System.out.print(option.getText() + " ");
        }

        driver.quit();
    }
}
```

Extra Challenge:

Select options using both selectByVisibleText and selectByIndex.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
```

```
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import java.util.List;

public class ExtraSelectChallenge {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/select-menu");

        Select oldStyleSelect = new Select(driver.findElement(By.id("oldSelectMenu")));
        oldStyleSelect.selectByVisibleText("Blue");
        System.out.println("Selected by visible text: " +
oldStyleSelect.getFirstSelectedOption().getText());

        oldStyleSelect.selectByIndex(3); // Index starts at 0
        System.out.println("Selected by index: " +
oldStyleSelect.getFirstSelectedOption().getText());

        Select multiSelect = new Select(driver.findElement(By.id("cars")));
        multiSelect.selectByVisibleText("Green");
        multiSelect.selectByIndex(2); // Selects "Yellow" if index 2 is "Yellow"
        multiSelect.selectByVisibleText("Black");
        List<WebElement> selectedOptions = multiSelect.getAllSelectedOptions();
        System.out.print("Multi-Select chosen: ");
        for (WebElement option : selectedOptions) {
            System.out.print(option.getText() + " ");
        }
    driver.quit();
```

```
    }
}
```

Assignment 3 – Alerts

Objective: Handle different types of alerts.

Scenario:

Open the DemoQA site → https://demoqa.com/alerts

Perform:

Click the button to see an alert, accept it.

Click the "On button click, confirm box will appear" button, dismiss the alert.

Click the "Prompt Box" button, enter your name, and accept it.

Capture and print the alert messages before accepting/dismissing.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.Alert;

public class AlertsAssignment {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
```

```
        driver.get("https://demoqa.com/alerts");

        driver.findElement(By.id("alertButton")).click();
        Alert alert = driver.switchTo().alert();
        System.out.println("Alert Message: " + alert.getText());
        alert.accept();

        driver.findElement(By.id("confirmButton")).click();
        alert = driver.switchTo().alert();
        System.out.println("Confirm Box Message: " + alert.getText());
        alert.dismiss();

        driver.findElement(By.id("promtButton")).click();
        alert = driver.switchTo().alert();
        System.out.println("Prompt Box Message: " + alert.getText());
        alert.sendKeys("Your Name");
        alert.accept();

        driver.quit();
    }
}
```

Extra Challenge:

Wait dynamically for the alert that appears after 5 seconds, then accept it.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
```

```
import org.openqa.selenium.Alert;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import java.time.Duration;

public class AlertWaitChallenge {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/alerts");

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

        WebDriverWait wait = new WebDriverWait(driver, Duration.ofSeconds(10));
        Alert alert = wait.until(ExpectedConditions.alertIsPresent());

        System.out.println("Alert after wait: " + alert.getText());
        alert.accept();

        driver.quit();
    }
}
```

Assignment 4 – Combined Scenario

Objective: Integrate all three concepts.

Scenario:

Open a practice site (you can use https://demoqa.com or https://the-internet.herokuapp.com/).

Steps:

Drag and drop an element (Action Class).

Select multiple options from a dropdown (Select Class).

Trigger a prompt alert, enter a message, and verify it on the page.

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;
import org.openqa.selenium.support.ui.Select;
import org.openqa.selenium.Alert;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.openqa.selenium.support.ui.ExpectedConditions;
import java.time.Duration;
import java.util.List;

public class CombinedAssignment {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        WebDriver driver = new ChromeDriver();

        driver.get("https://the-internet.herokuapp.com/drag_and_drop");

        // Drag and drop element A to B
        WebElement dragElement = driver.findElement(By.id("column-a"));
        WebElement dropElement = driver.findElement(By.id("column-b"));
        Actions actions = new Actions(driver);
```

```
        actions.dragAndDrop(dragElement, dropElement).perform();

        driver.get("https://the-internet.herokuapp.com/dropdown");

        // Select multiple options is not supported on this site, so for demonstration select
different options sequentially
        Select dropdown = new Select(driver.findElement(By.id("dropdown")));
        dropdown.selectByVisibleText("Option 1");
        System.out.println("Selected option: " + dropdown.getFirstSelectedOption().getText());

        driver.get("https://the-internet.herokuapp.com/javascript_alerts");

        driver.findElement(By.xpath("//button[text()='Click for JS Prompt']")).click();

        WebDriverWait wait = new WebDriverWait(driver, Duration.ofSeconds(10));
        Alert prompt = wait.until(ExpectedConditions.alertIsPresent());
        prompt.sendKeys("Test Message");
        prompt.accept();

        WebElement result = driver.findElement(By.id("result"));
        System.out.println("Prompt result message: " + result.getText());

        driver.quit();
    }
}
```