Selenium day 2

Xpath

It is a path of the element in the HTML tree structure.

There are two kinds of Xpath -

1. **Absolute Xpath - only Forward slash** - Used to navigate from parent to immediate child tag.

Example – heroku Login Username xpath

/html/body/div[2]/div/div/form/div[1]/div/input

2. **Relative Xpath -**

Double forward slash - Used to travel directly to the specified tag.

We can also use combination of **Relative** and **Absolute** Xpaths.

Xpath Syntax - //Tagname[@Attribute = ‘AttributeValue’];

Xpath example - **//input[@id='userName']**

2.How to write Xpath with Multiple attributes.

USing ‘**and’** operator

Example - //input[@class='nav-input nav-progressive-attribute' and @type=’text’]

3.How to use Text Function in Xpath -

Syntax :

//tagname[text()=’Text Value’]

//tagname[.=’Text Value’]

Example in Gmail SIgninPage :

//span[text()='Create account']

4.How to write Xpath using Indexing -

Syntax - **(//tag[@attribute='Value'])[index]**

(Xpath)[1]

Contains Function :

Syntax -

//Tag[contains(text(),'textvalue')]

Example -

(//div[@class="_fluid-quad-image-label-v2_style_fluidQuadImageLabelBody__3tld0"]//img)[3]

//a[contains(text(),'Grocery ')]

//*[contains(text(),'Forgot')]

5.Combination of Contains as well as Indexing in Xpath
(//*[contains(text(),'akshay')])[2]

How to use By.id in selenium script?

WebElement username = driver.findElement(By.id("userName"));

How to use By.name in selenium script?

driver.findElement(By.name("checkBoxOption1"));

Note :

Whenever we give a incorrect Locator, we get **NoSuchElement Exception.**

Day 2

13 Methods used from Webdriver Instance :

1) close()
2) findElement()

3) findElements()
4) get()
5) getCurrentUrl()
6) getPageSource()
7) getTitle()
8) getWindowHandle()
9) getWindowHandles()
10) manage()
11) navigate()
12) quit()
13) switchTo()

Web Element Commands: Edit Box, Button, Check box, Radio Button.

How to handle textbox :

Locate the Textbox/EditBox

Use one of the available methods to locate the textbox element. Common methods include

findElement(By.id()),

findElement(By.name()),

findElement(By.xpath())

Type into the Textbox using sendkeys() :

Textbox.sendkeys("Hello")

How to click on a button.

First we have to Locate the Element , then we store it into a variable of WebElement

Then we click on it using click().

WebElement button = driver.findelement(By.id("button_id"));

Button.click();

How to select a checkbox

First we have to Locate the Element , then we store it into a variable of WebElement

Then we click on it using click().

```
WebElement checkbox = driver.findelement(By.id("checkbox_id");

checkbox.click();
```

How to select a RadioButton

First we have to Locate the Element , then we store it into a variable of WebElement

Then we click on it using click().

```
WebElement radio = driver.findelement(By,id("radio_id" );

radio.click();
```

Select in Selenium WebDriver

How to Handle **Dropdowns**?

The 'Select' class in Selenium WebDriver is used for selecting and deselecting option in a dropdown.

The objects of Select type can be initialized by passing the dropdown webElement as parameter to its constructor.

```
WebElement DropDown = driver.findElement(By.id("testingDropdown"));

Select sel = new Select(DropDown);
```

WebDriver provides three ways to select an option from the drop-down menu.

1. **selectByIndex** - It is used to select an option based on its index, beginning with 0.

```
sel.selectByIndex(5);
```

2. **selectByValue** - It is used to select an option based on its 'value' attribute

sel.selectByValue("Database");

3. selectByVisibleText - It is used to select an option based on the text over the option.

sel.selectByVisibleText("Database Testing");

Find Elements

In Selenium with Java, the **findElements** method is used to locate multiple elements on a web page that match the specified locator strategy.

This method returns a list of **WebElement** objects, allowing you to interact with each matching element individually.

In list – we can store heterogeneous data.

In list we cannot store Duplicate values.

Here's a breakdown of how findElements works:

```
List<WebElement> elements = driver.findElements(By.Tagname("locatorValue"));
```

Handling Multiple Checkboxes

First we need to store the checkboxes using findelements, then iterating

Over a for loop we can click on it.

Code :

```
List<WebElement>checkboxes=driver.findElements(By.cssSelector("input[type='checkbox']")
;          // Check all checkboxes

          for (WebElement checkbox : checkboxes) {
```

```
checkbox.click();

}
```

Handling Multiple Radio buttons.

First we need to store the radio buttons using findelements, then iterating

Over a for loop we can click on it.

Code :

```
List<WebElement>radio=driver.findElements(By.cssSelector("input[type='checkbox']");
    // select all radio buttons.

    for (WebElement checkbox : checkboxes) {

    radio.click();

    }
```

Actions

The Actions class in Selenium with Java provides a way to perform complex user interactions, such as mouse and keyboard actions, on a web page. It is part of the org.openqa.selenium.interactions package. The Actions class is often used for performing actions like drag-and-drop, mouse hovering, key press/release, etc

Create an instance of the Actions class

```
Actions actions = new Actions(driver);
```

For Mouse Hover :

```
WebElement elementToHover = driver.findElement(By.id("elementId"));

actions.moveToElement(elementToHover).build().perform();
```

For Click :

```
WebElement elementToClick = driver.findElement(By.id("elementId"));

actions.click(elementToClick).perform();
```

For Double Click

```
WebElement elementToDoubleClick = driver.findElement(By.id("elementId"));

actions.doubleClick(elementToDoubleClick).perform();
```

For Right Click :

```
WebElement elementToRightClick = driver.findElement(By.id("elementId"));

actions.contextClick(elementToRightClick).perform();
```

For Drag and Drop :

```
WebElement sourceElement = driver.findElement(By.id("sourceElementId"));

WebElement targetElement = driver.findElement(By.id("targetElementId"));

actions.dragAndDrop(sourceElement, targetElement).perform();
```

Programs :

```
package Day2;

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

public class Buttondemo {

	public static void main(String[] args) throws InterruptedException {

		WebDriver driver = new ChromeDriver();

		driver.manage().window().maximize(); // Maximize the window
```

```
		driver.get("https://rahulshettyacademy.com/AutomationPractice/");

		WebElement homebutton =
driver.findElement(By.xpath("//button[text()='Home']"));

	// Return type of findelement() is WebElement

		homebutton.click();

	Thread.sleep(3000);

	driver.close();


	}

}

package Day2;

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

public class CheckTest {



	public static void main(String[] args) throws InterruptedException {

		try {

		WebDriver driver = new ChromeDriver();

		driver.manage().window().maximize(); // Maximize the window

		driver.get("https://rahulshettyacademy.com/AutomationPractice/");

		WebElement checkbox1 = driver.findElement(By.id("checkBoxOption1"));

		Thread.sleep(2000);

		System.out.println("my checkbox status before clicking
"+checkbox1.isSelected());

		checkbox1.click();
```

```
                System.out.println("my checkbox status after clicking
"+checkbox1.isSelected());

                Thread.sleep(2000);

                driver.close();

                }
                catch (Exception e) {

                }

        }

}

package Day2;

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;

public class Dropdowntest {

        public static void main(String[] args) throws InterruptedException {

                WebDriver driver = new ChromeDriver();

                driver.manage().window().maximize(); // Maximize the window

                driver.get("https://rahulshettyacademy.com/AutomationPractice/");


                // To handel dropdown
                // Step 1 - We have to write the locator for dropdown

            WebElement dropdown = driver.findElement(By.id("dropdown-class-example"));


            // Step 2 - Create object of Select class


            Select s = new Select(dropdown);

            // Select By Index
```

```
		//s.selectByIndex(2);

		// To find the value , we have to inspect the dropdown

		s.selectByValue("option3");

		Thread.sleep(2000);

		s.selectByVisibleText("Option1");









	}

}
```

```
package Day2;
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 MouseHover {
	public static void main(String[] args) {
		WebDriver driver = new ChromeDriver();

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


		// Step 1 - Store the Mouse Hover Webelement
		WebElement FashionLink = driver.findElement(By.linkText("Fashion"));


		//Step 2 - Create object of Actions class

		Actions act = new Actions(driver);

		//Step 3 - Call movetoelement()

		act.moveToElement(FashionLink).build().perform();
```

```
	}
}
package Day2;

import java.util.List;

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

public class Multiplechecks {

	public static void main(String[] args) {


		WebDriver driver = new ChromeDriver();

		driver.manage().window().maximize(); // Maximize the window

		driver.get("https://rahulshettyacademy.com/AutomationPractice/");


		 List<WebElement> checkboxes =
driver.findElements(By.xpath("//input[@type='checkbox']"));


		 for (WebElement check : checkboxes) {

			check.click();

		}



	}

}

package Day2;

import java.util.List;

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

```
public class Multipleradio {

	public static void main(String[] args) throws InterruptedException {

		WebDriver driver = new ChromeDriver();

		driver.manage().window().maximize(); // Maximize the window

		driver.get("https://rahulshettyacademy.com/AutomationPractice/");

		List<WebElement> radios = driver.findElements(By.name("radioButton"));



		for(int i=0;i<radios.size();i++) {


			radios.get(i).click();
			Thread.sleep(1000);
		}


	}

}
```

```
package Day2;

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

public class RadiobuttonTest {

	public static void main(String[] args) {

		try {
		WebDriver driver = new ChromeDriver();

		driver.manage().window().maximize(); // Maximize the window

		driver.get("https://rahulshettyacademy.com/AutomationPractice/");


		WebElement radio =
driver.findElement(By.cssSelector("input[value='radio2']"));
```

```
                radio.click();

                System.out.println(radio.isSelected());

                driver.close();

                }


                catch (Exception e) {

                e.printStackTrace();

                }


        }

}
```

```
package Day2;

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

public class Rahulshettytests {

        public static void main(String[] args) throws InterruptedException {

                WebDriver driver = new ChromeDriver();


                driver.get("https://rahulshettyacademy.com/AutomationPractice/");


                driver.findElement(By.id("autocomplete")).sendKeys("Value entered");

                Thread.sleep(2000);


                driver.close(); // This will close my browser

        }

}
```