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

}

}