**Handling Various Web Elements:**

**//test.html:**

<html>

<head>

<title>Hello</title>

<script>

function myDblClickFunction() {

document.getElementById("demo-messages").textContent = "You double clicked me!";

document.getElementById("demo-messages").style.color = "red";

}

function mySglClickFunction() {

document.getElementById("demo-messages").textContent = "You single clicked me!";

document.getElementById("demo-messages").style.color = "blue";

}

</script>

</head>

<body bgcolor="#ffeeee">

DEMO-MESSAGES:

<span id="demo-messages">GETTING STARTED</span>

<p id="xyz">Hello world!</p>

Alerts The simplest of these is referred to as an alert, which shows acustom message, and a single button which dismisses the alert, labelledin most browsers as OK. It can also be dismissed in most browsers bypressing the close button, but this will always do the same thing asthe OK button.

<a href="javascript:alert('hello alerts!')">See an example alert</a>

<br>

<br>

<div id="modal">

<iframe id="buttonframe" name="myframe"

src="https://seleniumhq.github.io" width=1200 width=600>

<button>Click here</button>

</iframe>

</div>

<br>

<br>

<button id="dblButton" ondblclick="myDblClickFunction()"

onclick="mySglClickFunction()">Double-click me</button>

<h3>0 Some h3 text</h3>

<form>

<input type="text" id="admin"> <br>

<input type="text"id="admin123"> <br>

<input type="text" id="adminxyz"><br>

<input type="text" id="adm"> <br>

</form>

<h3>1 Some h3 text</h3>

<h3>2 Some h3 text</h3>

<h3>3 Some h3 text</h3>

<select multiple aria-label="Month" name="birthday\_month" id="month"

title="Month" class="\_9407 \_5dba \_9hk6 \_8esg">

<option

value="1">Jan</option>

<option value="2">Feb</option>

<option value="3">Mar</option>

<option value="4">Apr</option>

<option value="5">May</option>

<option value="6">Jun</option>

<option value="7" selected="1">Jul</option>

<option value="8">Aug</option>

<option value="9">Sep</option>

<option value="10">Oct</option>

<option value="11">Nov</option>

<option value="12">Dec</option>

</select>

</body>

</html>

**// AdvancedLocateElementDemo.java**

package com.ecommerce.test;

import java.time.Duration;

import java.util.List;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.Alert;

import org.openqa.selenium.By;

import org.openqa.selenium.JavascriptExecutor;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.support.ui.ExpectedConditions;

import org.openqa.selenium.support.ui.Select;

import org.openqa.selenium.support.ui.WebDriverWait;

public class AdvancedLocateElementDemo {

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

WebDriver driver = new ChromeDriver(); // new FirefoxDriver();

demoElementActionForSelect(driver);

/\* Table demo \*/

static void demoElementActionForTable(WebDriver driver) throws InterruptedException {

String baseUrl = "https://www.nyse.com/ipo-center/recent-ipo";

driver.get(baseUrl);

driver.manage().timeouts().implicitlyWait(5, TimeUnit.SECONDS);

String tableXPath = "/html/body/div[1]/div[4]/div[2]/div[3]/div[1]/div[4]/table";

String tableRowXPath = "/html/body/div[1]/div[4]/div[2]/div[3]/div[1]/div[4]/table/tbody/tr";

// Row count

List<WebElement> selectIPOTableRows = driver.findElements(By.xpath(tableRowXPath));

System.out.println("No of rows : " + selectIPOTableRows.size());

String tableHeadColsXPath = "/html/body/div[1]/div[4]/div[2]/div[3]/div[1]/div[4]/table/thead/tr/th";

// Finding number of Columns

List<WebElement> columnsNumber = driver.findElements(By.xpath(tableHeadColsXPath));

int columnCount = columnsNumber.size();

System.out.println("No of columns in this table : " + columnCount);

// Finding cell value at 4th row and 3rd column

WebElement cellAddress = driver.findElement(By.xpath(tableXPath + "/tbody/tr[4]/td[3]"));

String value = cellAddress.getText();

System.out.println("The Cell Value is : " + value);

// JS Executor

JavascriptExecutor js = (JavascriptExecutor) driver;

String elementTextChangeScript = "var e = document.querySelector(\"body > div:nth-child(1) > div:nth-child(4) > div:nth-child(2) > div:nth-child(3) > div:nth-child(1) > div:nth-child(9) > table > tbody > tr:nth-child(3) > td:nth-child(3) > strong\"); e.textContent=\"Bharat Gas\";";

js.executeScript(elementTextChangeScript);

}

/\* Select/Multi-select actions demo \*/

static void demoElementActionForSelect(WebDriver driver) {

String baseUrl = "File:///C:\\\\Users\\\\lavan\\\\eclipse-workspaceSelenium\\\\hello-selenium\\\\src\\\\main\\\\resources\\\\test.html";

driver.get(baseUrl);

WebElement selectMonthElement = driver.findElement(By.id("month"));

Select selectMonth = new Select(selectMonthElement);

System.out.println("selectMonth is muti select " + selectMonth.isMultiple());

selectMonth.selectByIndex(0);

selectMonth.selectByIndex(6);

List<WebElement> optionsList = selectMonth.getAllSelectedOptions();

for (WebElement option : optionsList)

System.out.println("selectMonth selected options are " + option.getText());

}

static void demoXPathCSSSelector(WebDriver driver) {

String baseUrl ="File:///C:\\\\Users\\\\lavan\\\\eclipse-workspaceSelenium\\\\hello-selenium\\\\src\\\\main\\\\resources\\\\test.html";

driver.get(baseUrl);

List<WebElement> inputAdminElements = driver.findElements(By.xpath("//input[contains(@id, 'admin')]"));

System.out.println("inputAdminElements has " + inputAdminElements.size());

// same as above but by using CSS selectors

List<WebElement> inputAdminElementsUsingCSSSelector = driver.findElements(By.cssSelector("input[id\*='admin']"));

System.out.println("inputAdminElementsUsingCSSSelector has " + inputAdminElementsUsingCSSSelector.size());

WebElement secondH3SiblingOfForm = driver.findElement(By.cssSelector("h3:nth-child(2)"));

System.out.println("secondH3SiblingOfForm text is " + secondH3SiblingOfForm);

}

}

**Output Screenshots:**









