**Selenium Supporting Locators**

ID

Xpath

CSS Selector

Name

Class Name

Tag Name

Link Text

Partial Link Text

**CSS SELECTOR: -**

Class Name 🡪 TagName.ClassName (or) .ClassName

Id 🡪 Tagname#id

Other 🡪 Tagname[attribute=’value’]

Tagname 🡪 Tagname

Parent to Child 🡪 ParentTagname<space>ChildTagname

// div[class='login-container'] h2

**Link Text: -**

Achor **a** Tag represents link.

<a href="#">Forgot your password?</a>

Link Text 🡪 Forgot your password?

**X-path: -**

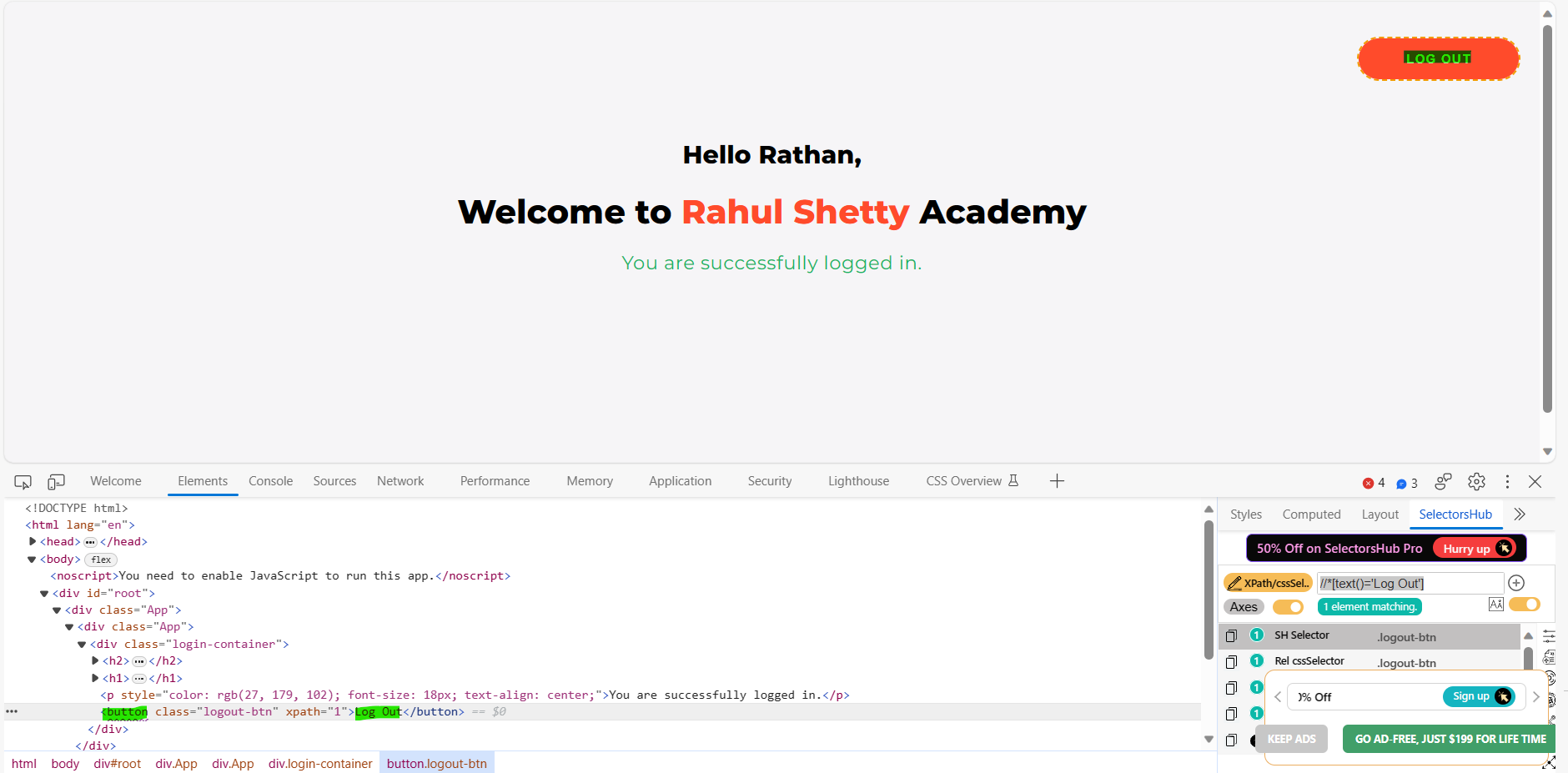
//Tagname[@attribute=”value”]

//is not a command it’s the syntax of X-Path

Tagname 🡪 //Tagname

**X-path with Text: -**

//button[text()='Log Out']



**X-Path without Tag name: -**

Here instead of Tag Name need to give (\*)

//\*[text()='Log Out’]

**With Index in X-Path: -**

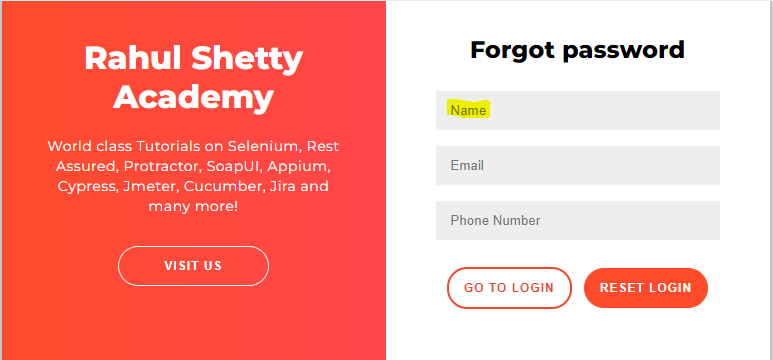
//input[@type='text'][2]

**With Index in CSS Selector: -**

CSS won’t Hide the Hidden Element while using index, so be careful while going with index in CSS Selector.

Input[type=’text’]:nth-child(2)

**Parent-Child Tag Xpath: -**



1St Highlighted is Parent

2nd Highlighted is Child



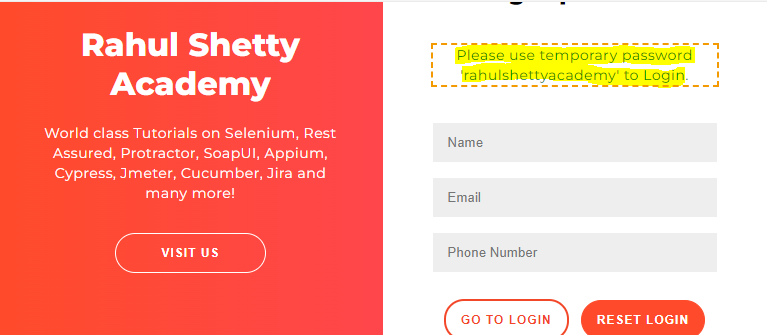
//form/input[1]

**Parent-Child Relationship Xpath: -**

//Parent//Child

//div[@id='glsctl00\_mainContent\_ddl\_originStation1\_CTNR']//a[@value='MAA']

**Parent-Child CSS Selector: -**



1St Highlighted is Parent

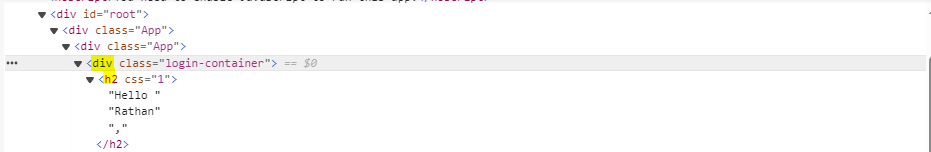
2nd Highlighted is Child

A screenshot of a computer

Description automatically generated

ParentTag<space>ChildTag

form p



Parent to Child 🡪 ParentTagname<space>ChildTagname

// div[class='login-container'] h2

**ElementClickInterceptedException: -**

**What is Single Page Application?**

In a Single Page Application (SPA), all of your application's functions exist in a single HTML page. As users access your application's features, the browser needs to render only the parts that matter to the user, instead of loading a new page. This pattern can significantly improve your application's user experience.

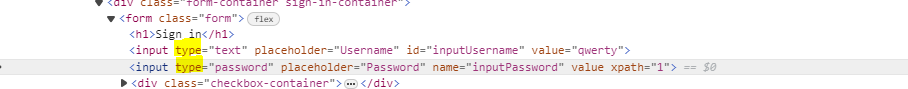
**When Element Click Intercepted Exception will occurs in Selenium?**

An ElementClickInterceptedException is a type of exception which can occur when using Selenium to run a test. The exception is usually thrown when an attempt to click on an element on a web page is intercepted or blocked by another element.

Usually this happens when another element is overlapping or positioned (partly) in front of the DOM element that your Selenium script is trying to click.

**Scanning the common attributes & picking it by scanning the value CSS Selector: -**

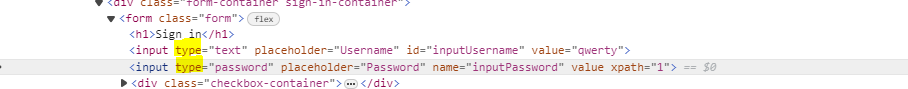
In the below Example we have a common attribute named as type using this we’re going to scan the values & pick the required one by using the below Syntax in CSS Selector.



Syntax: -

input[type\*='pass']

**Scanning the common attributes & picking it by scanning the value Xpath Selector: -**



Syntax: -

//input[contains(@value, ‘rmbrUsername’)]

**Class Name: -**

A compound class name refers to a class name that contains multiple classes separated by spaces. For example, if an HTML element has a class attribute like **<div class="class1 class2">**, then "class1 class2" is a compound class name.

Selenium won’t support compound class.

CSS: -

d.findElement(By.cssSelector(".class1.class2")).click();

Xpath: -

d.findElement(By.xpath("//div[contains(@class, 'class1') and contains(@class, 'class2')]")).click();

**Creating Object & calling that object into Main method: -**

import java.time.Duration;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.edge.EdgeDriver;

import org.testng.Assert;

public class CorrectPassword {

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

System.setProperty("webdriver.edge.driver", "C:\\Users\\DELL\\Documents\\Drivers\\edgedriver\_win64\\msedgedriver.exe");

WebDriver d = new EdgeDriver();

d.manage().timeouts().implicitlyWait(Duration.ofSeconds(5));

CorrectPassword obj = new CorrectPassword();

String password = obj.getPassword(d);

d.get("https://rahulshettyacademy.com/locatorspractice/");

obj.getPassword(d);

d.findElement(By.xpath("//button[@class='go-to-login-btn']")).click();

d.findElement(By.id("inputUsername")).sendKeys("Rathan");

d.findElement(By.name("inputPassword")).sendKeys(password); // Here instead of writing the password we're calling it by creating a method which copy paste the password here

Thread.sleep(1000);

d.findElement(By.xpath("//button[@class='submit signInBtn']")).click();

Thread.sleep(2000);

System.out.println(d.findElement(By.tagName("p")).getText());

Assert.assertEquals(d.findElement(By.tagName("p")).getText(), "You are successfully logged in.");

System.out.println(d.findElement(By.cssSelector("h2")).getText());

Assert.assertEquals(d.findElement(By.cssSelector("h2")).getText(), "Hello Rathan,");

d.findElement(By.xpath("//button[text()='Log Out']")).click();

}

public String getPassword(WebDriver d) throws InterruptedException {

d.get("https://rahulshettyacademy.com/locatorspractice/");

d.findElement(By.xpath("//div[@class='forgot-pwd-container']")).click();

Thread.sleep(1000);

d.findElement(By.xpath("//button[@class='reset-pwd-btn']")).click();

//d.findElement(By.xpath("//p[@class='infoMsg']")).getText();

String Infomsg = d.findElement(By.xpath("//p[@class='infoMsg']")).getText();

//Please use temporary password 'rahulshettyacademy' to Login.

String[] PassordArray = Infomsg.split("'");

//0th Index - [Please use temporary password] which is before the ' will be stored

//1st Index - [rahulshettyacademy' to Login.] which is after the ' will be stored

String[] Password = PassordArray[1].split("'");

//0th Index - [rahulshettyacademy] which is before the ' will be stored

//1st Index - [ to Login.] which is after the ' will be stored

String Final = Password[0];

return Final;

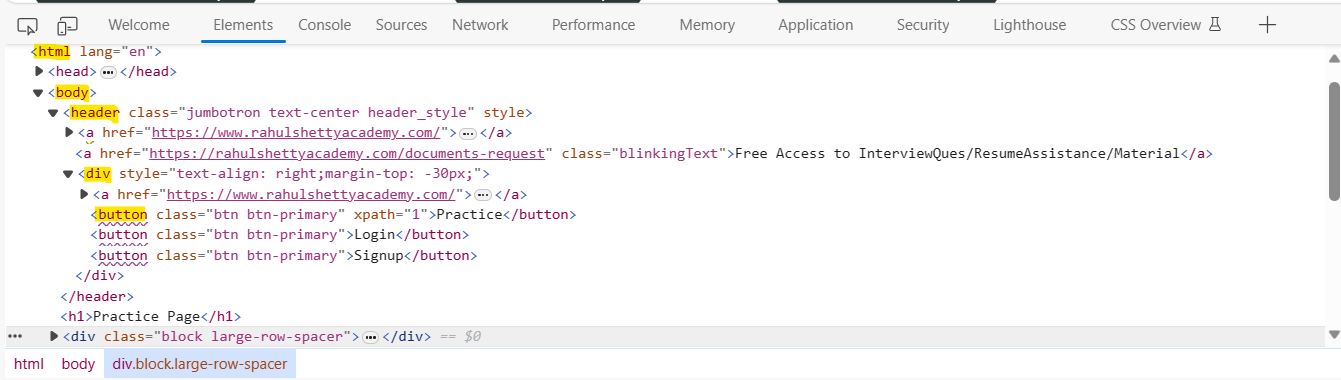
}

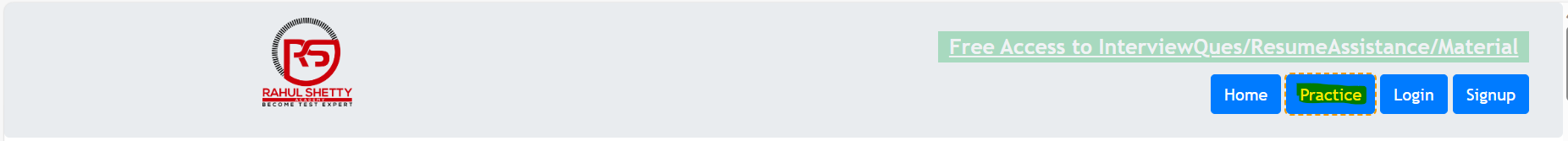
}

**Absolute X-Path:-**

Absolute XPath is the complete path of the element from the root element to the target element. It begins with a single forward slash **/**, representing the root of the document, and includes the complete hierarchy of elements.

/html/body/header/div[1]/button[1]





**Relative X-Path: -**

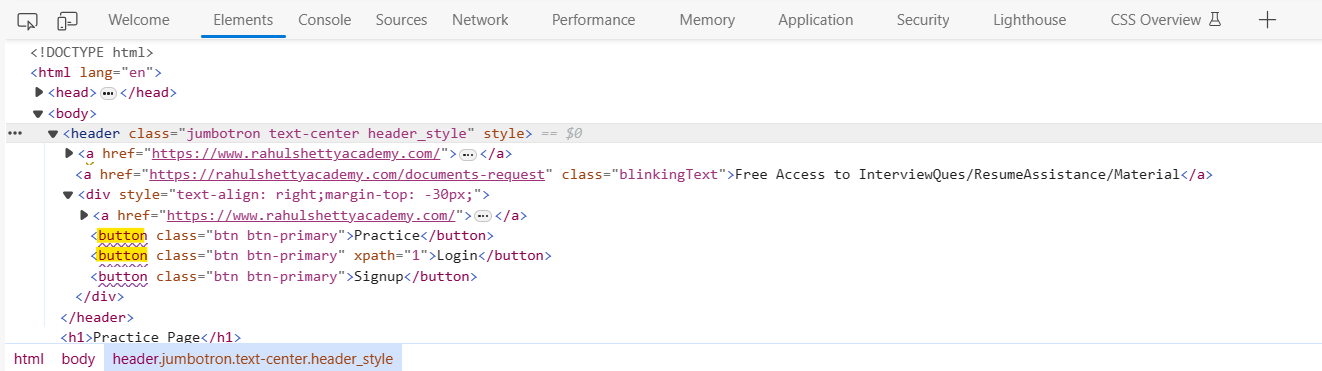
**Parent-Child & Sibling-Sibling Traverse: -**

In the context of XPath, sibling traversal refers to navigating to elements that share the same parent. Siblings are elements that have the same parent element. XPath provides several mechanisms to traverse between sibling elements. Two common axes used for sibling traversal are the following-sibling axis and the preceding-sibling axis.

The below yellow Highlighted is the Sibling Traverse

The below Red Highlighted is Parent-Child Transverse

//header/div/button[1]/following-sibling::button[1]



**Child-Parent Traverse: -**

Here Travelling back from Child to Parent

The below yellow highlighted is Sibling Traverse

//header/div/button[1]/parent::div

//header/div/button[1]/parent::div/parent::header

Reverse Traverse is not possible in CSS Locator

**Dropdowns**

1. Handling Static Dropdown
2. Handling Dynamic Dropdown
3. Handling checkboxes
4. Handling Radio Button
5. Handling Text Button
6. Handling Alert-Java Popups
7. Selenium webdriver From Methods

**Handling Static dropdown: -**

If the Tag Name is select definitely it will be Static dropdown the values available in the dropdown will not change.

**import** org.openqa.selenium.By;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.WebElement;

**import** org.openqa.selenium.edge.EdgeDriver;

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

**public** **class** Dropdown {

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

System.*setProperty*("webdriver.edge.driver", "C:\\Users\\DELL\\Documents\\Drivers\\edgedriver\_win64\\\\msedgedriver.exe");

WebDriver d = **new** EdgeDriver();

d.manage().window().maximize();

d.get("https://rahulshettyacademy.com/dropdownsPractise/");

WebElement staticdropdown = d.findElement(By.*id*("ctl00\_mainContent\_DropDownListCurrency"));

Select drop = **new** Select(staticdropdown);

drop.selectByIndex(3);

System.***out***.println(drop.getFirstSelectedOption().getText());

drop.selectByVisibleText("AED");

System.***out***.println(drop.getFirstSelectedOption().getText());

drop.selectByValue("INR");

System.***out***.println(drop.getFirstSelectedOption().getText());

}

}

**Select Tag**

<select name="ctl00$mainContent$DropDownListCurrency" id="ctl00\_mainContent\_DropDownListCurrency" class="valid" xpath="1">

<option value="">Select</option>

<option value="INR">INR</option>

<option value="AED">AED</option>

<option value="USD">USD</option>

</select>

If any dropdown have select Tag then selenium will have a special class called “Select” to handle select dropdown.

In the below step we’re handling the static dropdown by creating a object for the select class.

WebElement staticdropdown = d.findElement(By.*id*("ctl00\_mainContent\_DropDownListCurrency"));

Select drop = **new** Select(staticdropdown);

Now the select class will bring the methods available in the class to work on the dropdown

**No. of clicks using Loop: -**

**For: -**

**for**(**int** i=1;i<9;i++) {

d.findElement(By.*id*("hrefIncAdt")).click();

}

**While: -**

**int** i = 1;

**while**(i < 9) {

d.findElement(By.*id*("hrefIncAdt")).click();

i++;

}

**Handling Dynamic dropdown: -**

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.edge.EdgeDriver;

public class DynamicDropdown {

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

System.setProperty("webdriver.edge.driver", "C:\\Users\\DELL\\Documents\\Drivers\\edgedriver\_win64\\\\msedgedriver.exe");

WebDriver d = new EdgeDriver();

d.manage().window().maximize();

d.get("https://rahulshettyacademy.com/dropdownsPractise/");

d.findElement(By.id("ctl00\_mainContent\_ddl\_originStation1\_CTXT")).click();

// MAA Chennai in From dropdown

d.findElement(By.xpath("//div[@id='glsctl00\_mainContent\_ddl\_originStation1\_CTNR']//a[@value='MAA']")).click(); // Parent-Child Relationship X-path

Thread.sleep(2000);

//d.findElement(By.id("ctl00\_mainContent\_ddl\_destinationStation1\_CTXT")).click();

// BLR Banglore in To dropdown

d.findElement(By.xpath("//div[@id='glsctl00\_mainContent\_ddl\_destinationStation1\_CTNR']//a[@value='BLR']")).click(); //Parent-Child Relationship X-path

}

}

**Auto-Suggestive Dropdown: -**

**import** java.util.List;

**import** org.openqa.selenium.By;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.WebElement;

**import** org.openqa.selenium.edge.EdgeDriver;

**public** **class** AutoSuggestive {

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

System.*setProperty*("webdriver.edge.driver", "C:\\Users\\DELL\\Documents\\Drivers\\edgedriver\_win64\\\\msedgedriver.exe");

WebDriver d = **new** EdgeDriver();

d.manage().window().maximize();

d.get("https://rahulshettyacademy.com/dropdownsPractise/");

d.findElement(By.*id*("autosuggest")).sendKeys("IND");

Thread.*sleep*(2000);

List<WebElement>options = (List<WebElement>) d.findElements(By.*xpath*("//li[@class='ui-menu-item']"));

**for**(WebElement option :options)

{

**if**(option.getText().equalsIgnoreCase("India"))

{

option.click();

**break**;

}

}

}

}