

limitations of partial link text

→ Element should be a link

eg: `inbox(7)`

→ Link ~~should~~ (or) element should be partially changing

eg: `7`
(or)

`<a>7`

5/9/22

CSS selector (cascading style sheet)

→ In selenium CSS selector is one of the locator, the syntax is as followed:

Syntax: `Tag [Attribute Name: Attribute value]`

eg: `a[id='d1']`

`a[name='n1']`

`a[class='c1']`

`a[href='https://www.jspiders.com/']`

This are called as CSS Expression.

Note:

We can check the CSS Expression in the browser by using following steps:

→ Inspect any element

→ Press Ctrl+F

→ Type the above expressions

→ 1 of 1 = one matching element

→ 1 of 3 → multiple matching

0 of 0 → no matching element

eg: css selector

```
class Democssselector {  
static {  
    system.setProperty("webdriver.chrome.driver", ".\\driver\\chromedriver.exe");  
}  
    psvm() {  
        webdriver driver = new ChromeDriver();  
        driver.get("file:///C:/Users/Admin/Desktop/Demo.html");  
        driver.findElement(By.cssSelector("a[id='d1']")).click();  
        driver.navigate().back();  
        driver.findElement(By.cssSelector("a[name='n1']")).click();  
        driver.navigate().back();  
        driver.findElement(By.cssSelector("a[class='c1']")).click();  
        driver.navigate().back();  
        driver.findElement(By.cssSelector("a[href='https://www.jspiders.com/']")).click();  
    }  
}
```

Note:-

→ The limitations of css selector is we cannot use text. (or) it does not support text.

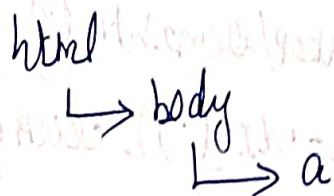
→ If we do any syntax mistake while writing css expressions (or) X-path then will get invalid selector ~~exp~~ Exception.

X-Path

→ It is the path of element in a html tree is called as X-Path.
→ while writing X-Path it starts with dot(.) which also represents current html documents (or) current web page. using dot(.) is not

mandatory

html tree:



X-Path

. /html/body/a
(or)
/html/body/a } → X-path expression.

using X-Path in selenium

driver.findElement (By.XPath ("html/body/a")).click();

Note:-

we navigate from parent element to child element we use single (/)

/ → represents child.

Types of X-Path

- Absolute X-Path
- Relative X-Path

Relative X-path:

- X-path by attribute
- X-path by text function.
- X-path by contains function
- traversing Xpath
- independent dependent Xpath
- Xpath by group index.

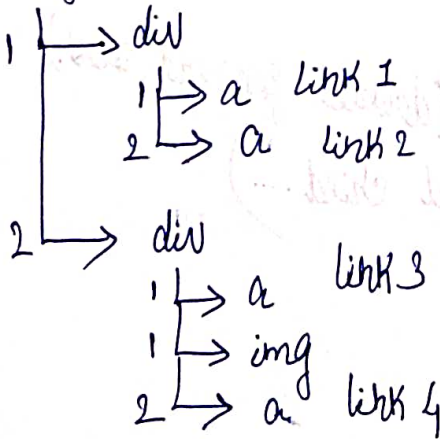
Absolute X-path

starting from the html tag to the required (or) desired element is called as absolute X-path.

X-path index

Html

└ body



In X-path we can use an index which starts from 1, then if there is another element under the same parent with the same tag then index become 2 and so on.

X-Path

link 1 \rightarrow /html/body/div/a[1]

link 2 \rightarrow /html/body/div/a[2]

link 3 \rightarrow /html/body/div[2]/a[1]

link 4 \rightarrow /html/body/div[2]/a[2]

link 1 & 2 \rightarrow /html/body/div[1]/a

link 3 & 4 \rightarrow /html/body/div[2]/a

link 1 & 3 \rightarrow /html/body/div/a[1]

link 2 & 4 \rightarrow /html/body/div/a[2]

image \rightarrow /html/body/div[2]/img (or) /html/body/div/img

link 1, 2, 3, 4 \rightarrow /html/body/div/a

All the above X-Path are called as Absolute X-Path.

Relative X-Path:

Relative X-Path starts with // (double forward slash) which represents descendants (Child, grandchild, great grand child....)

link 1 \rightarrow //div[1]/a[1]

link 2 \rightarrow //div[1]/a[2]

link 3 \rightarrow //div[2]/a[1]

link 4 \rightarrow //div[2]/a[2]

link 1 & 2 \rightarrow //div[1]/a

link 3 & 4 \rightarrow //div[2]/a

link 1 & 3 \rightarrow //div/a[1]

link 2 & 4 \rightarrow //div/a[2]

image \rightarrow //div[2]/img (or) //div/img.