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Web Object Identification

Web Object Indentification

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Agenda

- Why do we need identify web object?
- HMTL Structure
- Finding Objects
- XPath
- Type of XPath and CSS Selector
- XPath Syntax
- CSS Selector Syntax
- Summary

Why do we need identify web object?

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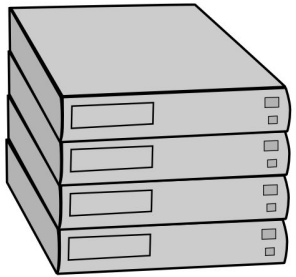
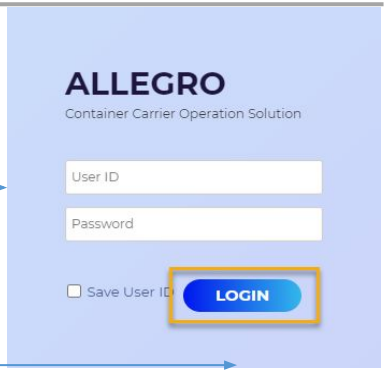
Find Login button



Where?



Click the object/web element whose id is btnLogin

I found it!

```
driver.findElement(By.id("login_btn"));
```

Locator Strategy

Locator Value

HMTL Structure

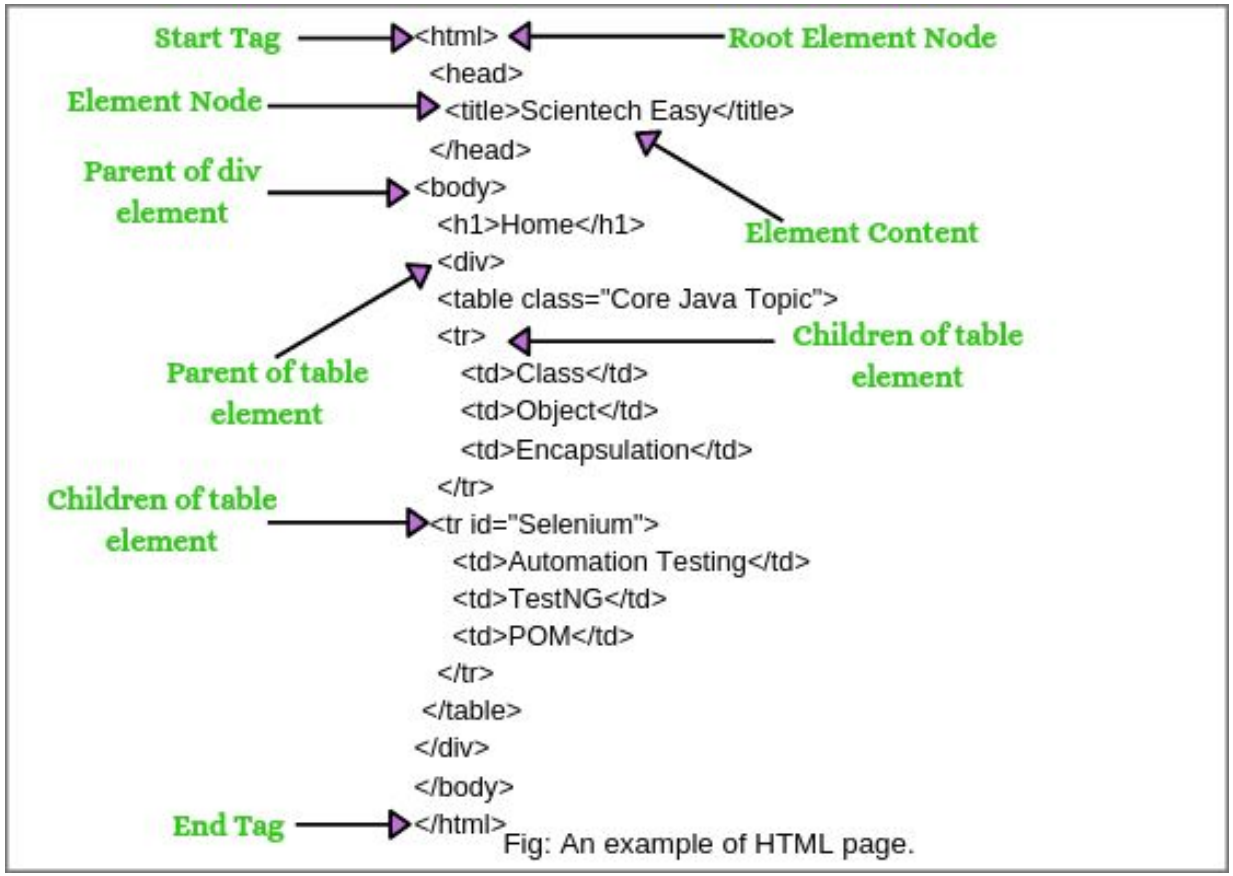


Fig: An example of HTML page.

Finding Objects

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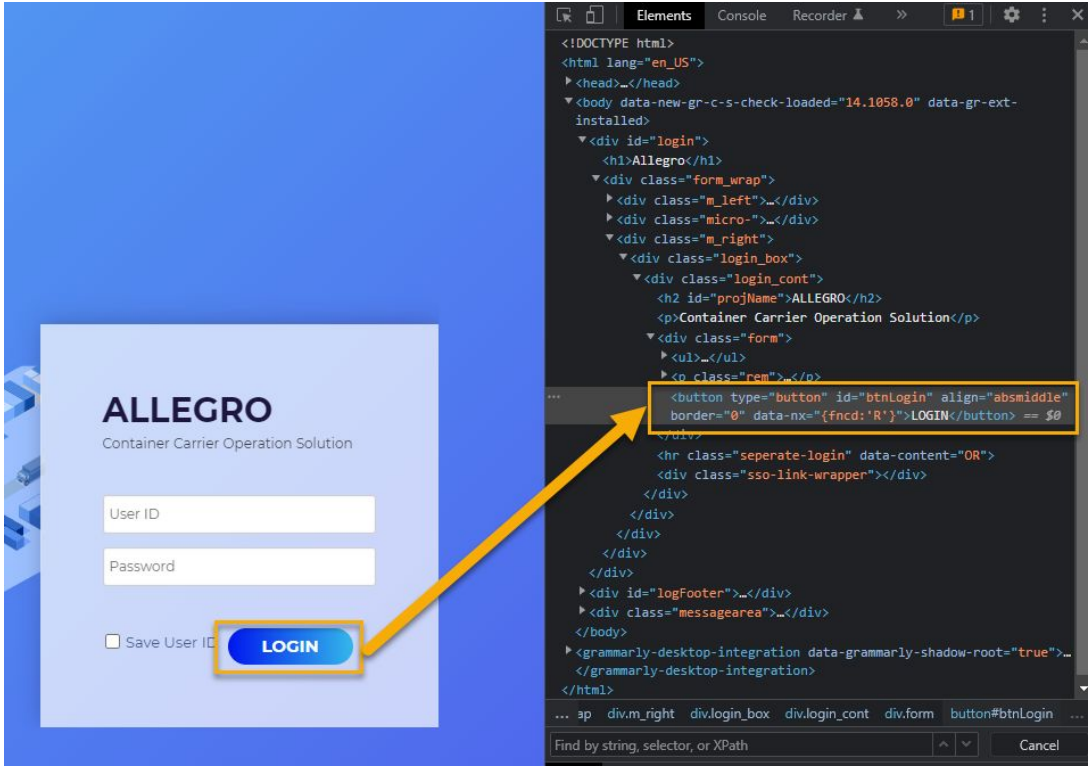
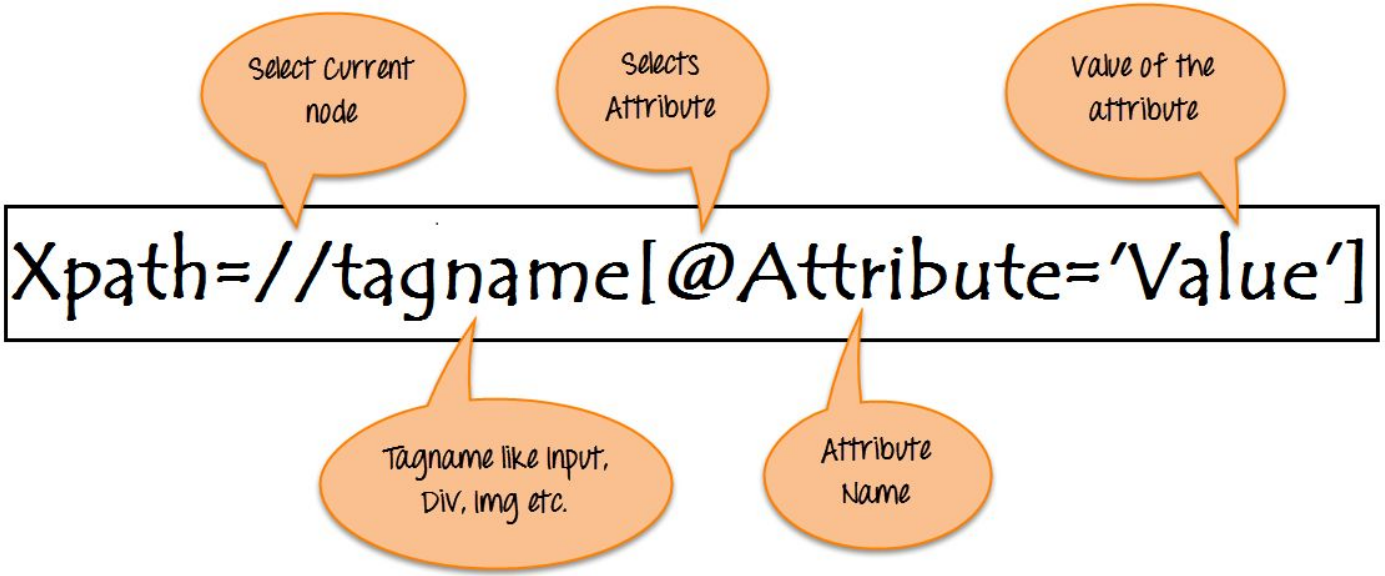
<button type="button" id="btnLogin" align="absmiddle“ border="0" data-nx="{fncd:'R'}">LOGIN</button>

Locator Strategies based on priority:

- ID
- Class Name
- Tag Name
- Xpath
- CSS Selector



XPath



i.e: //button[@id='btnLogin']

❖ Type of XPath and CSS Selector

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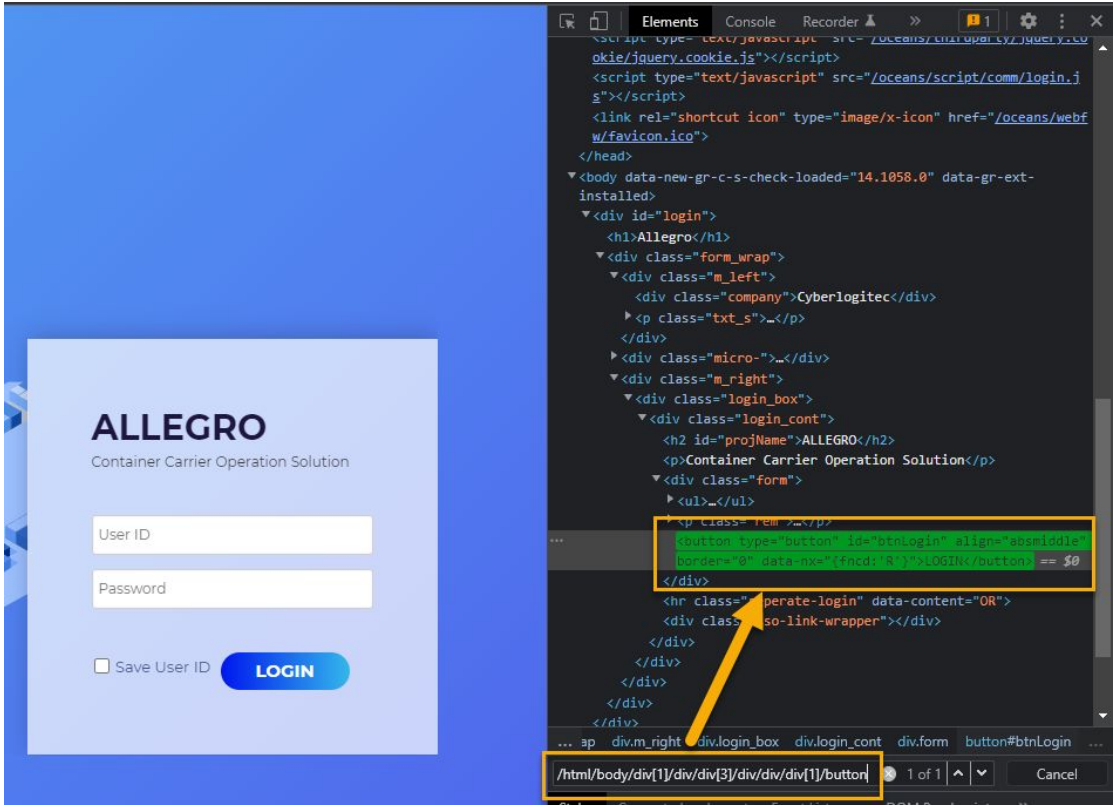
Absolute XPath, i.e: /html/body/div[1]/div/div[3]/div/div/div[1]/button



❖ Type of XPath and CSS Selector

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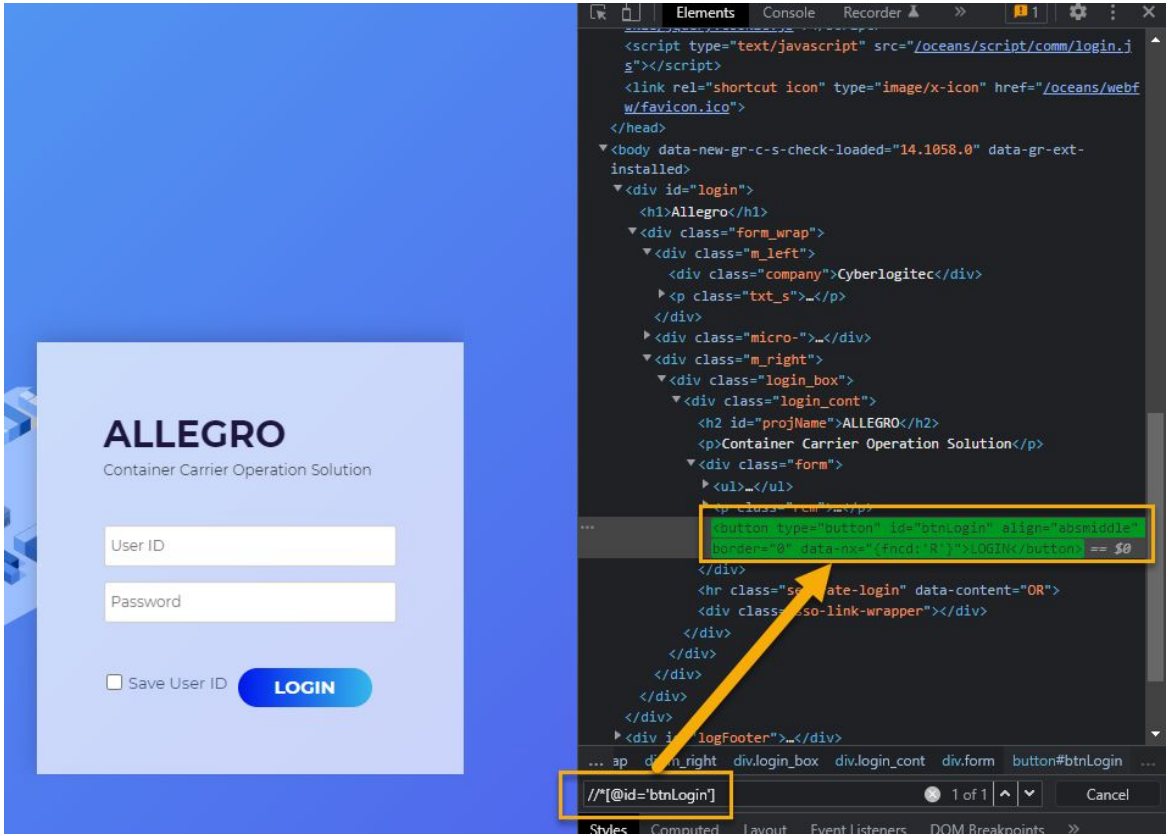
Relative Xpath, i.e://*[@id='btnLogin']



❖ Type of XPath and CSS Selector

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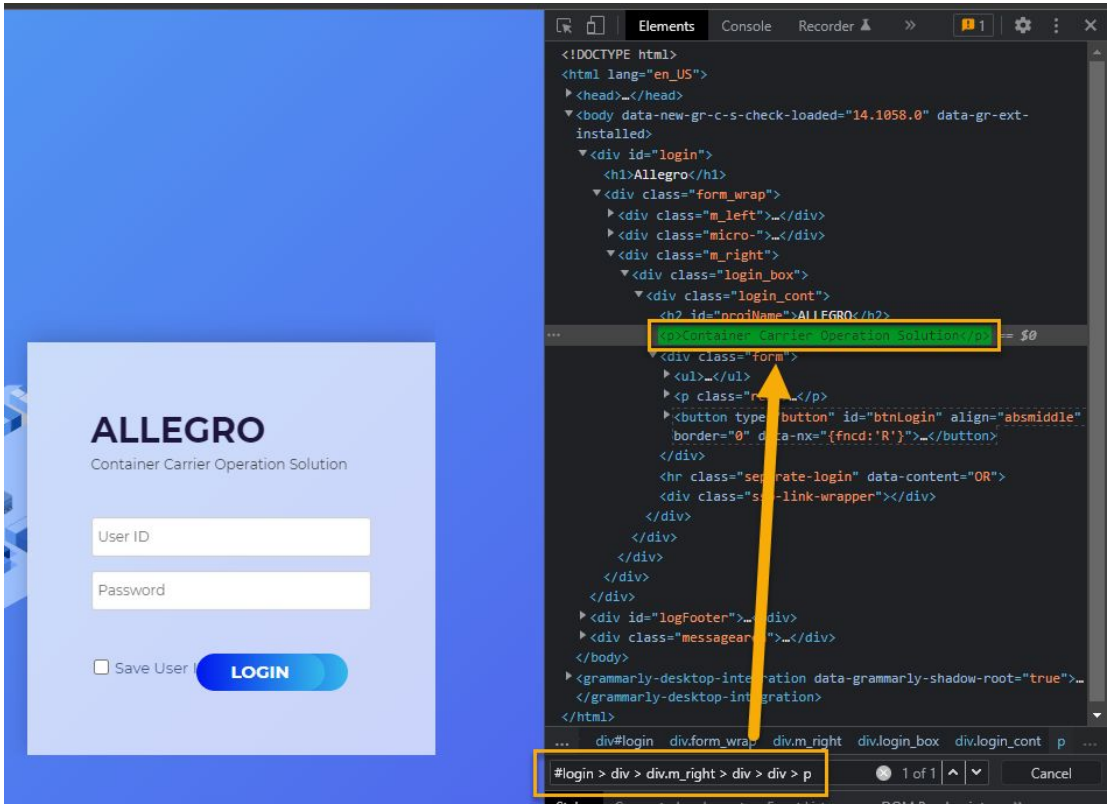
Absolute CSS Selector, i.e: #login > div > div.m_right > div > div > p



❖ Type of XPath and CSS Selector

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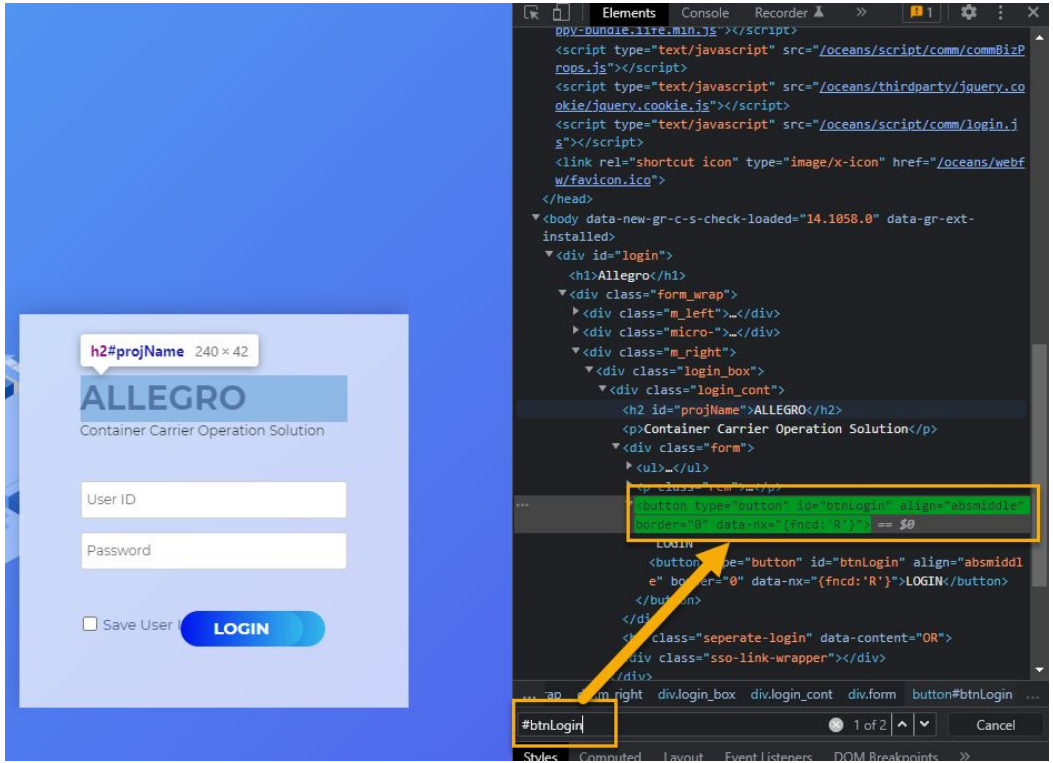
Relative CSS Selector, i.e: #btnLogin



XPath Syntax

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Expression	Description
/	Select from the root node
//	Select nodes in the document from the current node that match the selection no matter where they are
//*	Select all elements in the document
//div	Select all elements have tagname = “div”
@class	Select all elements have class
@class=‘value123’	Select all elements have class with value = “value123”

Reference: https://www.guru99.com/xpath-selenium.html

XPath Syntax

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Expression	Description
[contains(@class,'sub')	Select elements have class with value contain “sub”
//*[starts-with(@id,'message')]	Select elements have class with value start with “sub”
//*[@type='submit' or @name='btnReset']	Select elements has type is submit or elements has name is btnReset
//*[@type='submit’ and @name='btnReset']	Select elements has type is submit and has name is btnReset
//*[text()='UserID']	Selects elements has text = “UserID”
//body//div	Selects elements have tagname = “div” where the parent have tagname = “body”

CSS Selector Syntax

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Expression	Description
.intro	Selects all elements with attribute class = "intro"
.name1.name2	Selects all elements with attribute class = “*name1”* and attribute class = “*name2* ”
.name1 .name2	Selects all elements with attribute class= “*name2”* that is a child of an element with attribute class = ”*name1”*
#firstname	Selects the element with id = "firstname"
div	Selects all elements has tagname = “div”
div.intro	Selects all elements has tagname = “div” with attribute class = "intro“

CSS Selector Syntax

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Expression	Description
body>div	Selects elements have tagname = “div” where the parent have tagname = “body”
input[size='8']	Selects elements have tagname = “input” with attribute size =“8”
[title~=flower]	Selects all elements has attribute is title containing the word "flower"
[lang|=en]	Selects all elements has attribute lang with value starting with "en"
[href*=“allegro"]	Selects all elements has attribute href attribute with value contains "allegro"

Reference: https://www.w3schools.com/cssref/css_selectors.asp

❖ Summary

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- Should use unique and valid locator
- Good practice for performance when locating Web Elements:
  Id > ID + Class/Text/LinkText > CSS Selector/XPath
- Should use relative path rather than absolute path (XPath and CSS Selector)
- PRACTICE, PRACTICE & PRACTICE.

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Q/A?