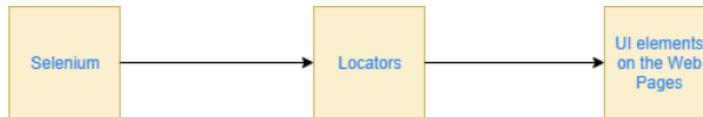


# Selenium Training - Session 5

## Locators

### Introduction to Locators

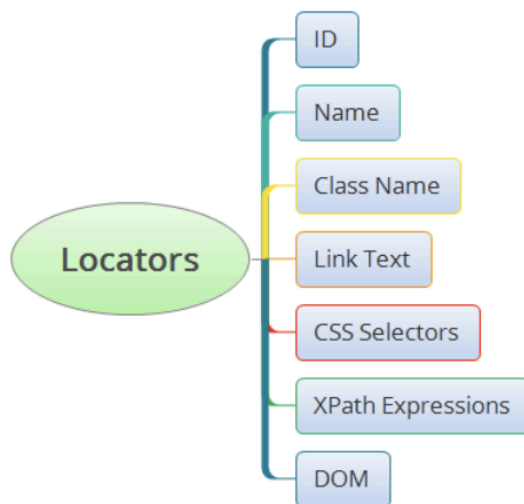
- Locators help Selenium in finding the UI elements on Web pages.



- We can use these locators in our test automation code to locate the UI elements on the Web pages.
- Demonstrate the usage of Locators in locating the UI Elements on the Web Pages using Selenium IDE

### Different types of Locators

The below are the different types of locators which can be used for locating the UI elements on the Web Pages:



### Demonstrating Different types of Locators

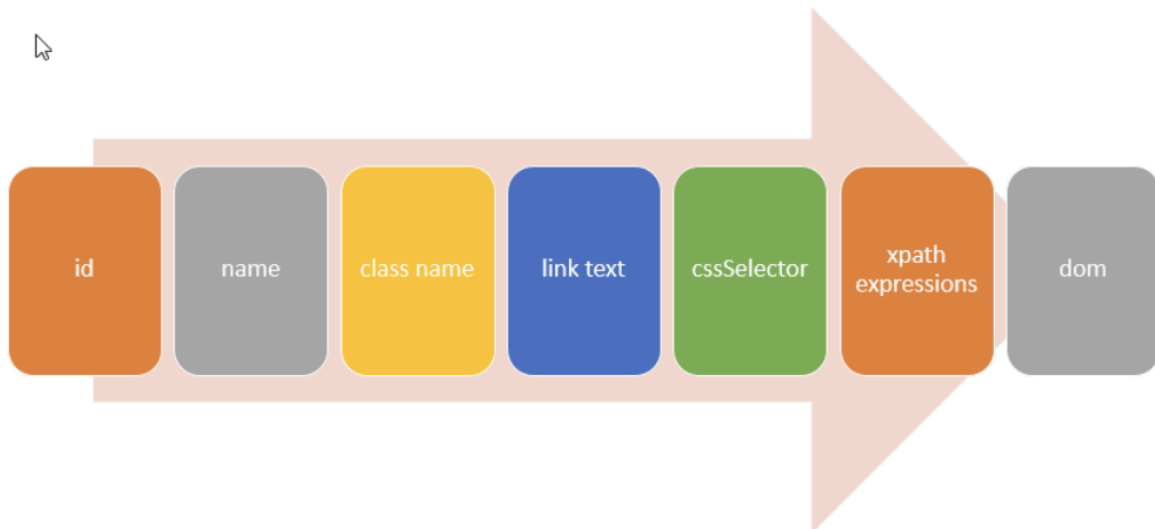
With the help of Selenium IDE's Target Text box field, demonstrate all the below different types of locators:

- id** locator - Example: 'Button2' button in omayo blog - Syntax: id=but2
- name** locator - Example: 'Locate using name attribute' text box field in omayo blog - Syntax: name=textboxn
- class** locator - Example: text box "locate using class" in omayo blog - Syntax: class=classone
- link** locator - Example: link 'compendiumdev' in omayo blog - Syntax: link=compendiumdev
- css** locator - Example: 'Button2' button in omayo blog - Syntax: css=#but2
- xpath** locator - Example: 'Button2' button in omayo blog - Syntax: xpath=//\*[@id='but2']
- dom** locator - Example: 'Button2' button in omayo blog - Syntax: dom=document.getElementById("but2")

### Locators Priority

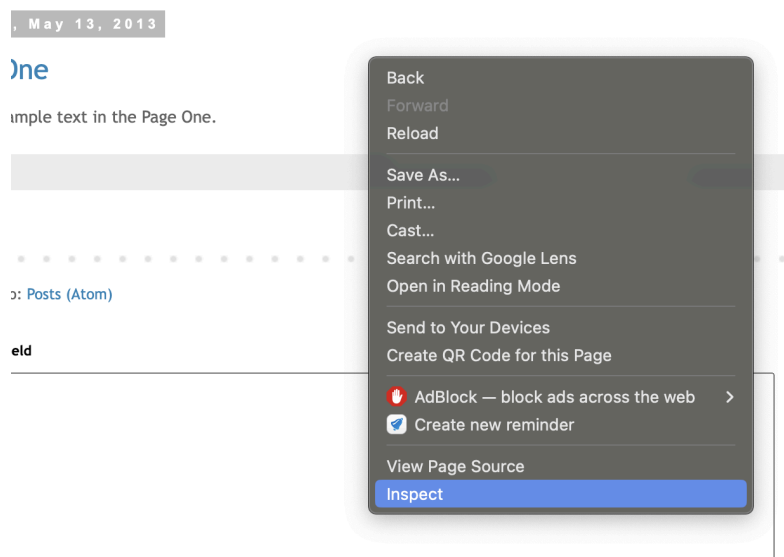
Though there are different types of locators available for locating the UI elements on the Web Pages, we need to use any one of them based on their priority.

The below is the priority order in which we need to select and use the locators :



- 'id' locator needs to be given the first priority. i.e. If the same UI element can be located with the help of different locators like id, name and so on, we need to choose id locator locating it.
- Similarly second priority goes for 'name' locator. i.e. If the UI element cannot be located by id locator, then we will prefer to choose 'name' locator as second priority.
- Third priority goes for 'class' locator.
- Forth priority goes for 'link text' locator.
- Fifth priority goes for 'cssSelector' locator.
- Sixth priority goes for 'xpath expressions' locator.
- Last priority goes for 'dom' locator.

To see the HTML code of a page - Right click and inspect the page



```
WebDriver driver = new ChromeDriver();  
  
driver.manage().window().maximize();  
  
driver.get("https://omayo.blogspot.com/");  
  
driver.findElement(By.id("ta1")).sendKeys("this text will be written to webpage");
```

## ID Selector

The screenshot displays a web application with two main components: a button and a text area field. An accessibility inspection tool is open over the button, showing the following details:

- Contrast:** Aa 18.26 (with a green checkmark)
- Name:** Button2
- Role:** button
- Keyboard-focusable:** (with a green checkmark)

The button itself is labeled "Button2". Below the button is a label "Table" next to an empty rectangular box.

Below the button and table is a "Text Area Field" label next to a large empty text input area.

On the right side of the image, a code editor shows the HTML structure of the page. The code is as follows:

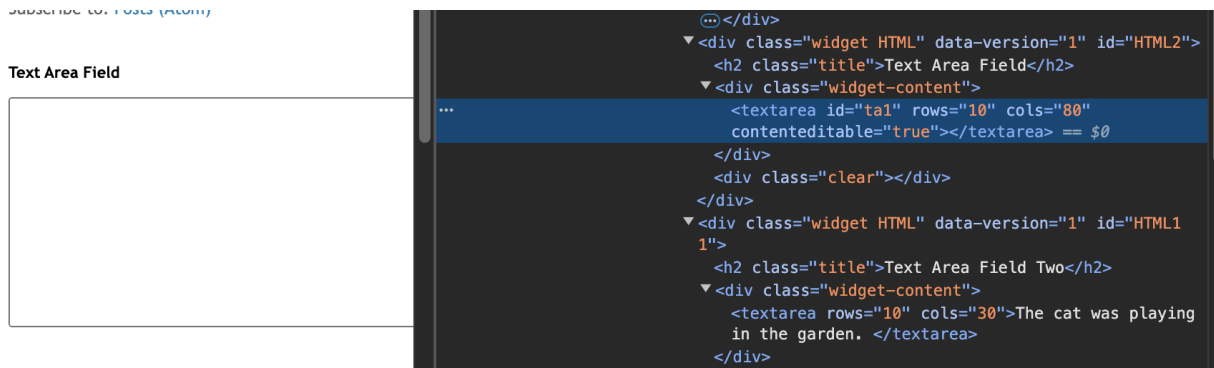
```

<h2 class="title">Enabled Button</h2>
  <div class="widget-content">
    <button id="but2" type="button" contenteditable=
      "true">Button2</button>
    </div>
    <div class="clear"></div>
  </div>
  <div class="widget HTML" data-version="1" id="HTML
    8"></div>
  <div class="widget HTML" data-version="1" id="HTML1
  </div>
  <div class="widget HTML" data-version="1" id="HTML2">
    <h2 class="title">Text Area Field</h2>
    <div class="widget-content">
      <textarea id="ta1" rows="10" cols="80"
        contenteditable="true"></textarea> == $0
    </div>
    <div class="clear"></div>
  </div>
  <div class="widget HTML" data-version="1" id="HTML1
    1">
    <h2 class="title">Text Area Field Two</h2>
    <div class="widget-content">
      <textarea rows="10" cols="30">The cat was playing
        in the garden. </textarea>
    </div>
  </div>

```

Never blindly follow ID - They might change frequently based on the website.

## Name Selector

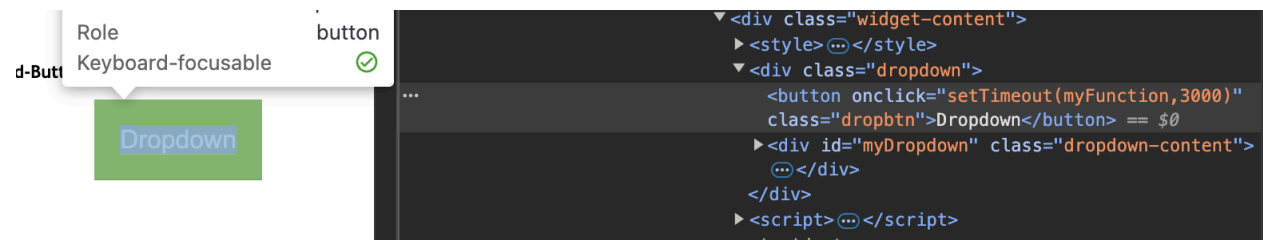


The screenshot shows a Selenium IDE interface. On the left, a 'Text Area Field' is selected. On the right, the HTML source code is displayed. The following HTML snippet is highlighted:

```
<div class="widget HTML" data-version="1" id="HTML2">
  <h2 class="title">Text Area Field</h2>
  <div class="widget-content">
    <textarea id="ta1" rows="10" cols="80"
      contenteditable="true"></textarea> == $0
  </div>
  <div class="clear"></div>
</div>
<div class="widget HTML" data-version="1" id="HTML1">
  <h2 class="title">Text Area Field Two</h2>
  <div class="widget-content">
    <textarea rows="10" cols="30">The cat was playing
      in the garden. </textarea>
  </div>
</div>
```

## Click a Button

```
driver.findElement(By.className("dropbtn")).click();
```



The screenshot shows a Selenium IDE interface. On the left, a 'Click a Button' action is selected. On the right, the HTML source code is displayed. The following HTML snippet is highlighted:

```
<div class="widget-content">
  <style></style>
  <div class="dropdown">
    <button onclick="setTimeout(myFunction,3000)"
      class="dropbtn">Dropdown == $0
    <div id="myDropdown" class="dropdown-content">
      </div>
  </div>
  <script></script>
</div>
```

## Link Selector

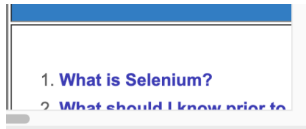
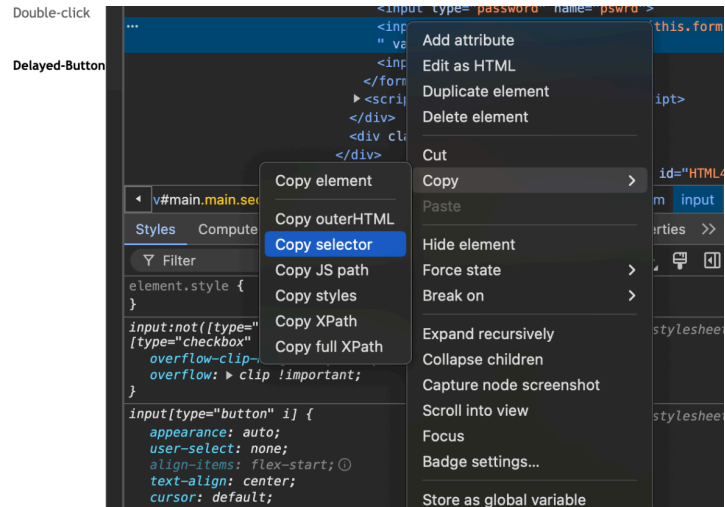


The screenshot shows a Selenium IDE interface. On the left, a 'Link Selector' action is selected. On the right, the HTML source code is displayed. The following HTML snippet is highlighted:

```
<h2>Other Sites to Practice Automation</h2>
<div class="widget-content">
  <ul>
    <li>
      <a href="http://compendiumdev.co.uk/selenium/basic_web_page.html">compendiumdev</a>
    </li>
  </ul>
</div>
```

```
driver.findElement(By.linkText("compendiumdev")).click();
```

# CSS Selector

#HTML42 > div.widget-content > form > input[type=button]:nth-child(3)