

## Locators

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- Locators are used to identify the elements present on a web page and which are of following types.
  - Xpath
  - Name
  - Classname
  - Tagname
  - ID
  - Linktext
  - Partiallinktext

## XPath

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- **XPath in Selenium** is an XML path used for navigation through the HTML structure of the page.
- It is a syntax or language for finding any element on a web page using XML path expression.
- XPath can be used for both HTML and XML documents to find the location of any element on a webpage using HTML DOM structure.

### 1. Absolute XPath

It is the direct way to find the element, but the disadvantage of the absolute XPath is that if there are any changes made in the path of the element then that XPath gets failed.

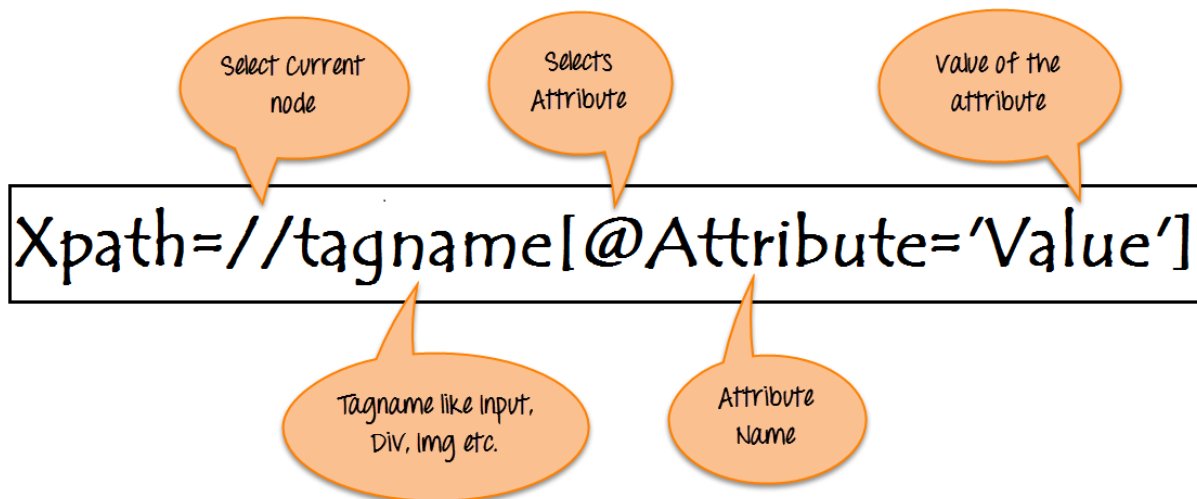
The key characteristic of XPath is that it begins with the single forward slash(/) ,which means you can select the element from the root node.

Syntax : /html/body/div[1]/div[2]/div[1]/div/div/div/div[2]/div/div[1]/form/div[1]/div[1]/input

### 2. Relative Xpath

Relative Xpath starts from the middle of the HTML structure. It starts with a double forward slash (//). It can search elements anywhere on the webpage, meaning no need to write a long xpath and you can start from the middle of HTML DOM structure. Relative Xpath is always preferred as it is not a complete path from the root element.

Syntax : Xpath = //tagname[@attribute='attribute\_value']



## Finding the xpath by following ways

### 1. By Attribute and attribute value

- For finding an XPath node in an XML document, use the **XPath Attribute** expression location path.
- We can use XPath to generate attribute expressions to locate nodes in an XML document.
- Syntax >> `//tagname[@Attribute = 'attribute_value']`  
E.x `//input[@name = 'email']`

### 2. By text function

- The **XPath text() function** is used to locate elements based on text of a web element.
- It helps to find the exact text elements and it locates the elements within the set of text nodes.
- The elements to be located should be in string form.
- It is mostly used for links on webpages.
- Syntax >> `//tagname[text() = 'text_value']`  
E.x `//a[text()='Forgotten password?']`