Locating a web element has always been the most vital part of the automation script development. Finding correct, effective, and accurate locator have always been the pain area of any automation test development process. It has compelled QA *Engineers* to think beyond id, name, class, link, or *tagName* as locators. *XPath* has always been one of the favorites locators among the *QAs,* specifically for locating dynamic elements. ***XPath in Selenium*** provides various *xpath functions and axes(relationships)*, which helps to *write effective XPaths* of the web elements and defining a unique locator for the web elements. In this article, we will cover details of all those functions and axes, using which we can choose the *XPath* of a web element very effectively and uniquely, by covering the details under the following topics:

- *What are XPath Functions in Selenium?*
  - *XPath Contains() function*
  - *XPath Starts-with() function*
  - *XPath Text() function*
  - *AND & OR operators*
- *What are the XPath Axes in Selenium?*
  - *Ancestor Axis*
  - *Child Axis*
  - *Descendant Axis*
  - *Parent Axis*
  - *Following Axis*
  - *Following sibling Axis*
  - *Preceding Axis*
- *XPath Example: Usage of XPath functions and Axes in Selenium*

What are XPath Functions in Selenium?

Sometimes while working in a *dynamic web environment,* it becomes challenging to locate a particular web element by using general attributes such as name, class, etc. Several different elements may have similar properties, for example, similar names or class names. Even the simple *XPath* strategies we discussed in the ***previous chapter*** may not be very efficient, as in such a case, a simple XPath may return more than one element. To overcome such scenarios, *XPath in Selenium* offers ***XPath functions*** that can *write effective XPaths* to identify elements uniquely. Let's understand what XPath provides all different functions *in Selenium,* which helps in uniquely locating a web element:

Xpath Contains() function

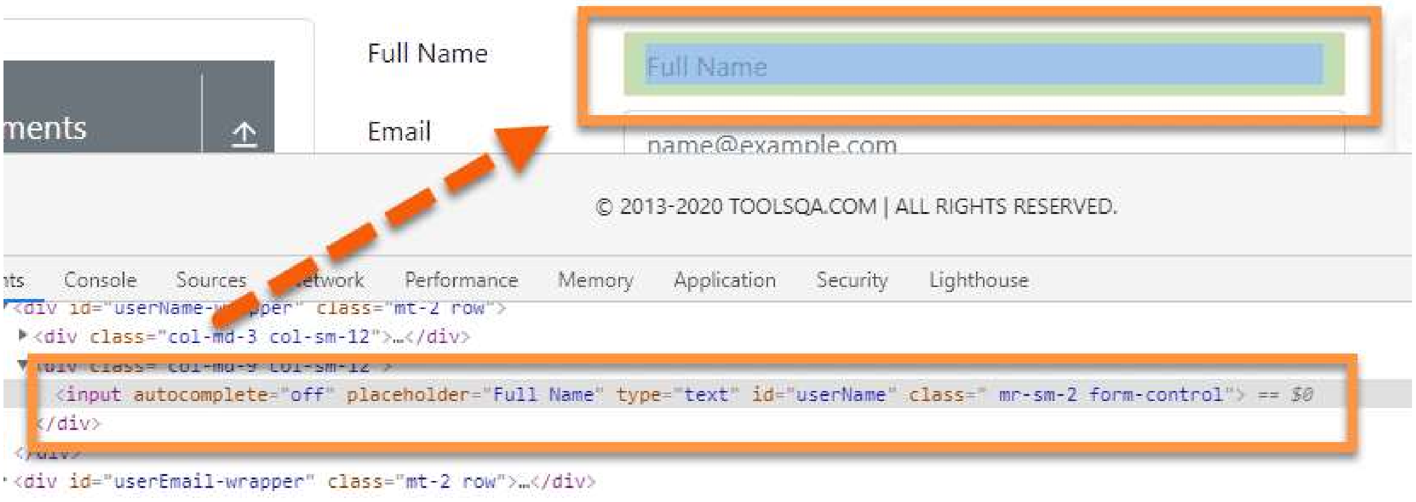
XPath Contains() is one of the methods used while creating an *XPath* expression. We can use it if ***part of the value of any attribute*** *changes dynamically.* It can identify any attribute by using its *partial value.* The syntax for using the XPath ***contains()*** method is:

```
//tag_name[contains(@attribute,'value_of_attribute')]
```

where the ***contains()*** method accepts two parameters:

The attribute of the tag which needs to validate for locating the web element.
The Partial value of the attribute, which the attribute should contain.

Let's look at an example on page ***"https://demoqa.com/text-box",*** where we will try to find the element using partial attribute value. Here we are trying to locate the *textbox* of *Full Name,* as highlighted below:



```
<div id="userName-wr    per" class="mt-2 row">
  <div class="col-md-3 col-sm-12">…</div>
  <div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
  </div>
</div>
<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

Let's look at the *DOM* of the element.

```
<input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm
```

Here, we have an ***"id "*** attribute with value as ***"username"***. Instead of using the complete value ***"username"***, we can use a part of the value and use it with ***contains()*** to identify the element.

So, the *XPath* that can locate the element will be:

```
//input[contains(@id, "userN")]
```

Here we have used ***"userN "*** as partial value. We can use any part of the attribute value that seems to appropriate.

Similarly, we can also write *XPath* of the *Email textbox.* The *DOM* of this element is:

```
<input autocomplete="off" placeholder="name@example.com" type="email" id="userEmail" clas
```

We can use any of the attributes for element identification. For example, here, let us take ***placeholder*** as an attribute to identify the element. So, the *XPath* will be:

```
//input[contains(@placeholder, "example")]
```

So this way, we can locate any of the web elements by using the partial validation of the attributes. This approach becomes very handy when the attributes of the web element change at run time by keeping a part of the attribute static.

XPath Starts-with() function

The XPath ***starts-with()*** function, as the name suggests, finds the element which has *attribute value starting with the specific given character or character sequence.* This function is quite useful while dealing with dynamic web pages. Imagine an element that has an attribute value that keeps on changing with every page load or page operation. Usually, these dynamic elements have few common starting characters, followed by random dynamic texts. Apart from the dynamic attribute, this can also identify static elements.

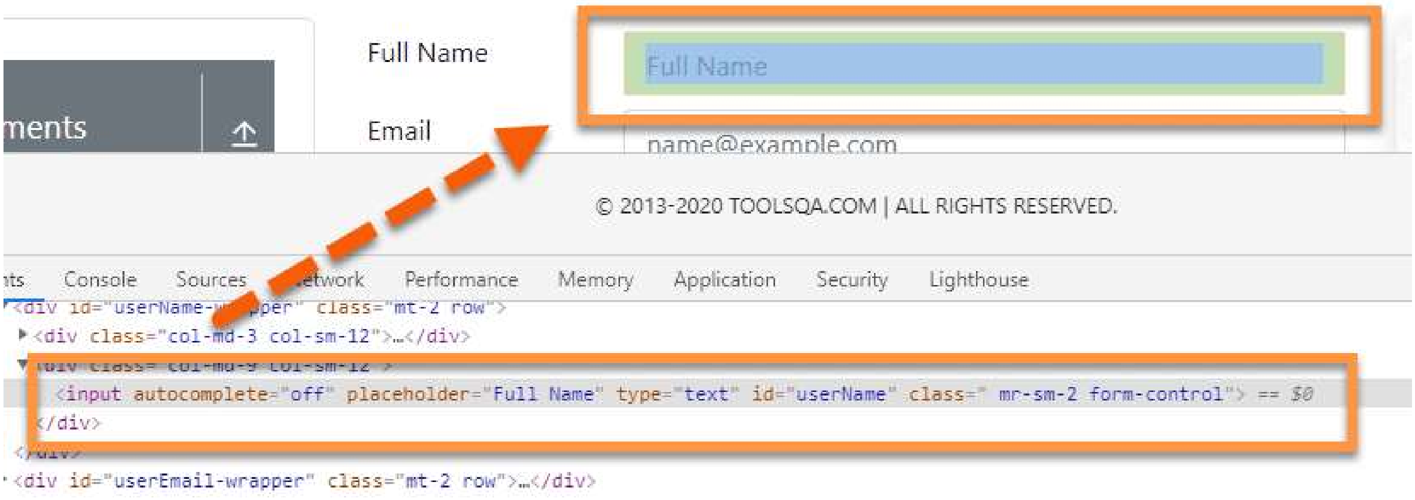
Syntax of the ***starts-with()*** method for *XPath* is:

```
//tag_name[starts-with(@attribute,'Part_of_Attribute_value')]
```

where the ***starts-with()*** method accepts two parameters:

The attribute of the tag which needs to validate for locating the web element.
The Partial value of the attribute, which we expect from the attribute to start.

Let's have a look at an example on page ***"https://demoqa.com/text=box"***, where we will consider the element ***"Full Name"*** and try to locate it using XPath:



```
<div id="userName-wrapper" class="mt-2 row">
  <div class="col-md-3 col-sm-12">…</div>
  <div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
  </div>
</div>
<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

Xpath Example:

If we look at the *DOM* of the web element, it is:

```
<input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm
```

So the *XPath Expression* for the following element using ***starts-with()*** function will be:

```
//input[starts-with(@placeholder,"Fu")]
```

Here we have used the *'placeholder '* attribute to identify the textbox element. So, the actual placeholder value for the element is ***"Full Name"***, but with the ***starts-with()*** function, we can use the starting few characters to recognize the element.

XPath Text() function

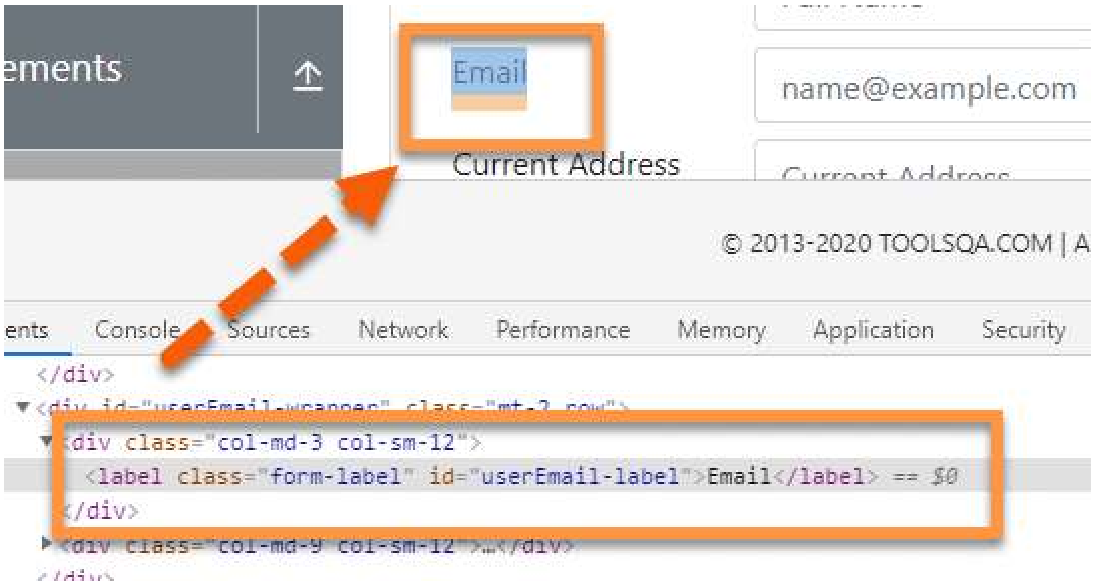
This function uses the ***text of the web element*** for locating the element on the *webpage.* This function is quite useful if your element contains the text, for example, labels, which always contain a static text.

The syntax of the ***text()*** function in *XPath* is:

```
//tag_name[text()='Text of the element']
```

where the ***text()*** method returns the text of the web element identified by the *tag_name,* and it compares the value with the string provided on the right side.

Let's have a look at the *webpage* ***"https://demoqa.com/text-box"*** and try to locate the ***"Email "*** label using ***text()*** function.



```
</div>
<div id="userEmail-wrapper" class="mt-2 row">
  <div class="col-md-3 col-sm-12">
    <label class="form-label" id="userEmail-label">Email</label> == $0
  </div>
  <div class="col-md-9 col-sm-12">…</div>
</div>
```

Here as we can see, the ***DOM*** structure of the element is:

```
<label class="form-label" id="userEmail-label">Email</label>
```

Xpath Example:

We will be using the text present in the *UI* for recognizing the element. The text on the *UI* is ***"Email"***, and the same is present between element tag, i.e., `<label> ….</label>`

So the *XPath Expression* for the label element will be:

```
//label[text()="Email"]
```

Here we directly used the text present on the web page to identify the element instead of using the attribute and values to recognize the same.

AND & OR operators

The ***"and "*** operator is used to ***combining two different conditions or attributes*** to identify any element from a webpage using XPath efficiently. *For example, if we have two attributes, a and b, we can combine both to uniquely identify an element on the webpage using the **"and "** operator.*

The syntax for using the ***“and ”*** operator is:

```
//tag_name[@name = 'Name value' and @id = ‘ID value’]
```

Here, we are *using name and id attribute; you* can use any attribute required to identify the element uniquely.

The ***"or "*** operator is used to locate an element based on *any of the conditions* segregated by the ***"or "*** operator. We use it majorly based on certain run-time conditions. The attributes of the element can contain any of the values, so putting a condition with ***"or "*** will ensure that the element is locatable with any one of those conditions.

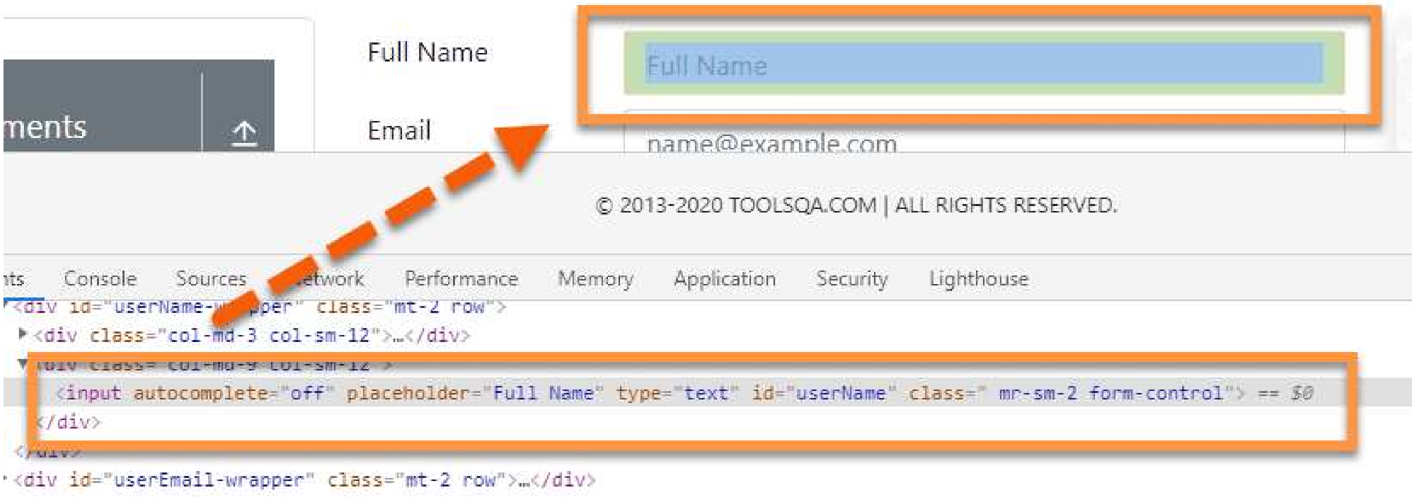
The syntax for using the ***“or ”*** operator is:

```
//tag_name[@name = 'Name value' or @id = ‘ID value’]
```

So, if any one *of the conditions is true,* the *XPath* will locate the element successfully.

Let's try to understand the same with the help of an example on the web page ***"https://demoqa.com/text-box"***.

Here we want to identify and locate the element ***“Full Name ”*** using both ***AND & OR*** operators.



```
<div id="userName-wrapper" class="mt-2 row">
  <div class="col-md-3 col-sm-12">…</div>
  <div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
  </div>
</div>
<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

XPath using AND operator:

```
//input[@placeholder ='Full Name' and @type = 'text']
```

Here, we have combined *placeholder* and *type* attributes to locate the element. ***Both the conditions,*** i.e., the attribute values, must be available to locate the element.

XPath using OR operator:

```
//input[@placeholder ='Full Name' or @type = 'text']
```

In this example, we have used attribute *placeholder* and *type* with *'or '* operator. Here ***either placeholder or type attribute*** needs to match with the element property present on the *webpage.* If any of the conditions *(attribute)* meet, then *XPath* will locate the element.

Now, there can be scenarios that, even after using the above functions, sometimes the user is not able to locate the web elements uniquely. In those scenarios, the *XPath* axes come as a rescue and help locate a web element with the help of its relationship with other web elements on the web page. Let's understand what *XPath* provides all different types of axes in *Selenium.*

What are the XPath Axes in Selenium?

We read that ***XPath in Selenium*** uses the *Absolute* and *Relative* paths to locate the web elements. Additionally, all the web elements in the *XML DOM* are related to each other via a hierarchical structure. *XPath* provides specific attributes that are called ***"XPath Axis"***, and these use the relationship between various nodes to locate those nodes in the *DOM* structure. The following table shows a few of those *Axis,* which can locate the elements on a web page using *XPath in Selenium.*

Axis	***Description***
ancestor	This axis locates the ancestors of the current node, which includes the parents up to the root node.
ancestor-or-self	This axis locates the current node as well as its ancestors.
attribute	This axis specifies the attributes of the current node.
child	This axis locates the children of the current node

Axis	***Description***
descendant	This axis locates the descendants of the current node, i.e., the node's children up to the leaf node.
descendant-or-self	This axis locates the current node and its descendants.
following	This axis locates all nodes that come after the current node.
following-sibling	This axis locates the below siblings of the context node. Siblings are at the same level as the current node and share its parent.
parent	This axis locates the parent of the current node.
preceding	This axis locates all nodes that come before the current node.
self	This axis locates the current node.

Let's understand a few of them in more detail with examples in the following sections:

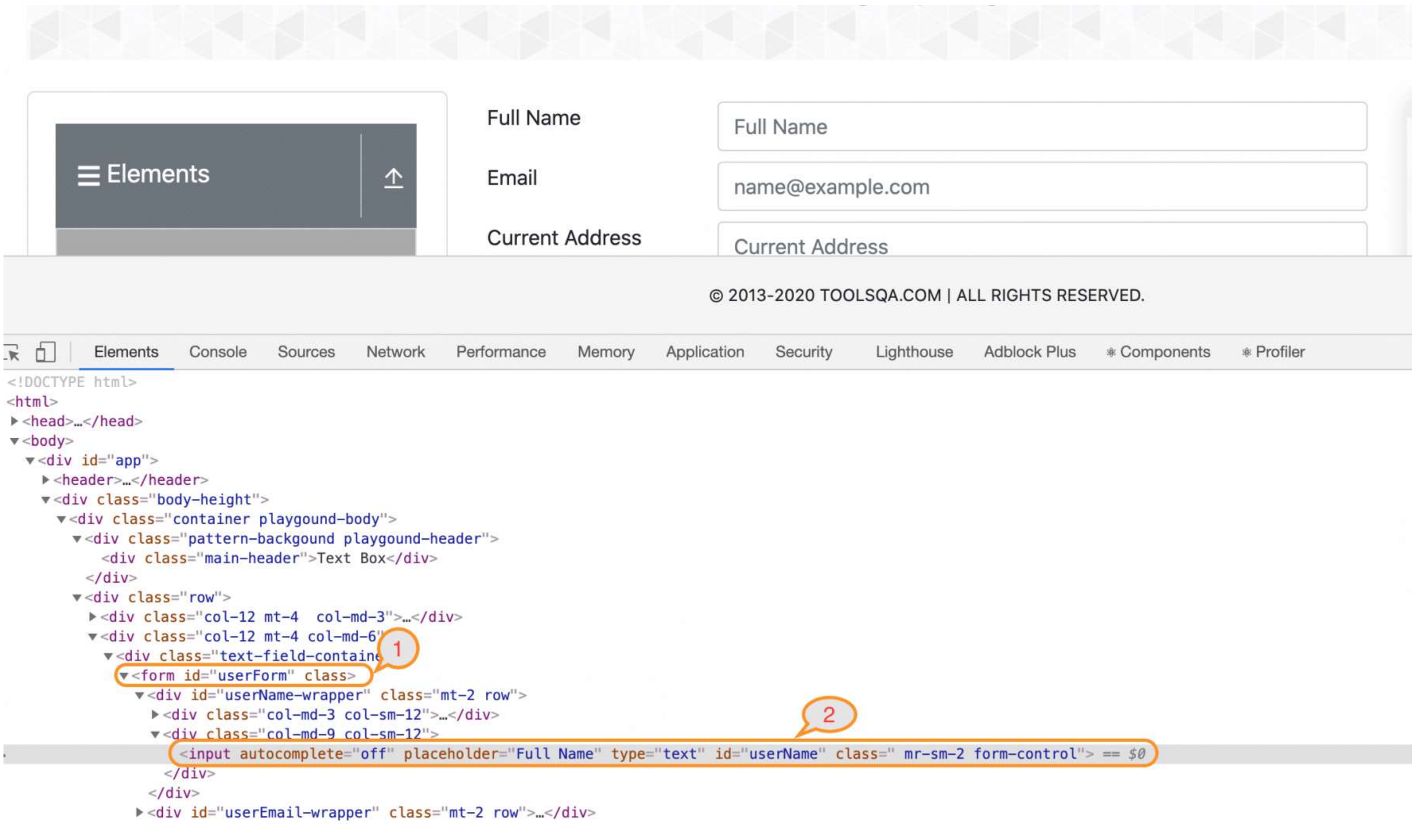
Xpath Ancestor Axis

The ancestor axis is used in *XPath* to select *all the parent (and parent of the parent)* elements of the current node. It's beneficial in scenarios where we can identify the node of the child element, but we are not able to recognize its parent or grandparent nodes. For these scenarios, we can take the child node as a reference point, and we can use the ***"ancestor"*** axis to recognize its parent node.

Syntax and usage of the ancestor in XPath:

```
//tag[@attribute ='Attribute_Value']//ancestor::parent_node
```

Let's have a look at the following example. Let's say we want to locate the ***userForm****(shown by marker 1)* on the *webpage* **"https://demoqa.com/text-box"**, but due to its dynamic properties, we cannot directly identify it. But we can identify the ***"Full Name"*** label
(shown by marker 2) present on the page. Here we can use the ***ancestor axis*** to identify the parent node.



```
<!DOCTYPE html>
<html>
▶<head>…</head>
▼<body>
  ▼<div id="app">
    ▶<header>…</header>
    ▼<div class="body-height">
      ▼<div class="container playgound-body">
        ▼<div class="pattern-backgound playgound-header">
            <div class="main-header">Text Box</div>
          </div>
        ▼<div class="row">
          ▶<div class="col-12 mt-4  col-md-3">…</div>
          ▼<div class="col-12 mt-4 col-md-6">
            ▼<div class="text-field-containe
              ▼<form id="userForm" class>
                ▼<div id="userName-wrapper" class="mt-2 row">
                  ▶<div class="col-md-3 col-sm-12">…</div>
                  ▼<div class="col-md-9 col-sm-12">
                      <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
                    </div>
                  </div>
                ▶<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

Xpath Example:

The *XPath Expression* for the *Full Name* label is:

```
//label[text()=”Full Name”]
```

But we want to locate the *`<form>`* ***tag,*** which is two hierarchy above this element. Let's write the *XPath Expression* that can locate the form node.

```
//label[text()="Full Name"]/ancestor::form
```

At first, we wrote *XPath* to locate the child node and then used the ***ancestor axis*** to find the form node. One thing that we should keep in mind is, if there is more than one parent node with the same tag, then this same *XPath* will identify several different elements.

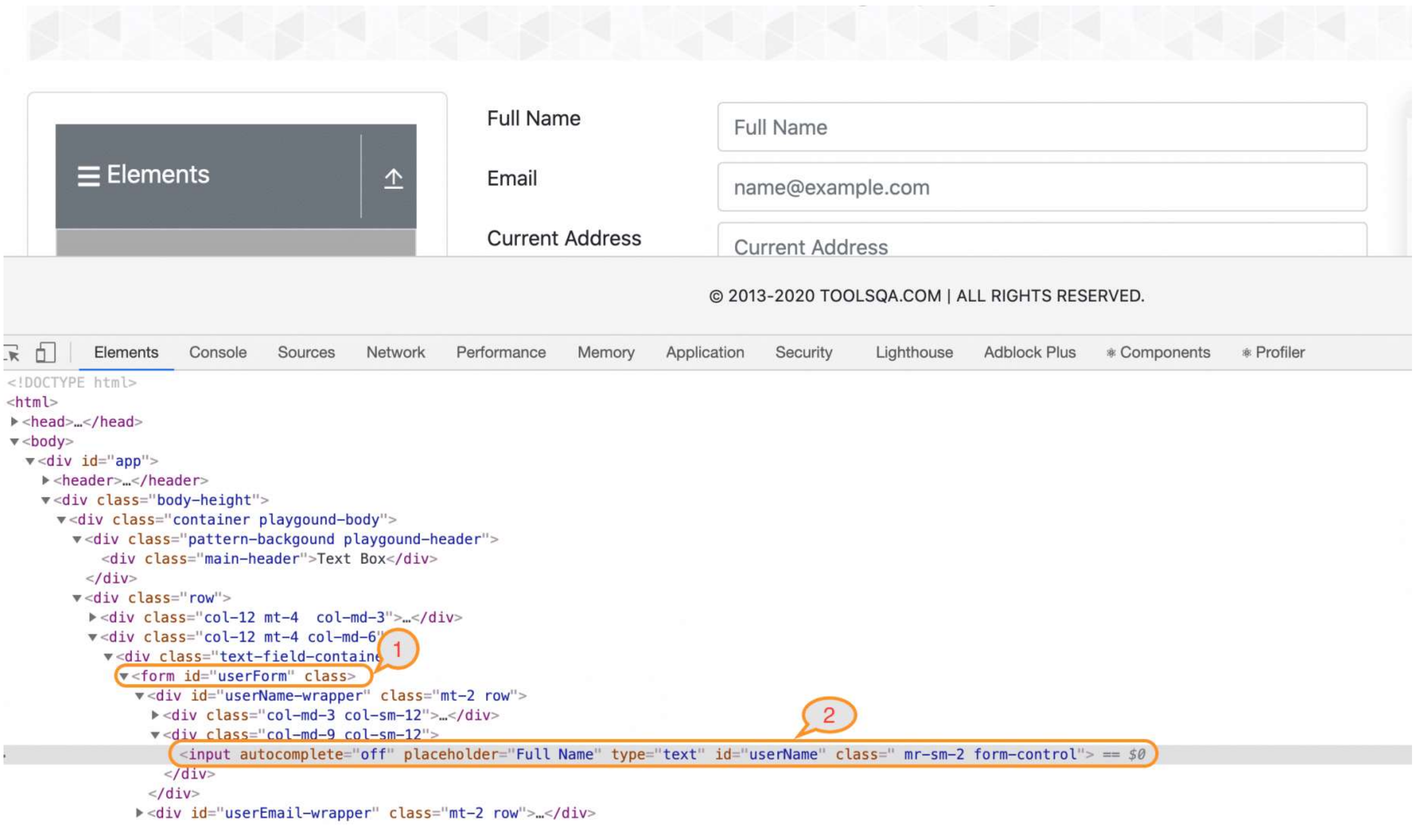
XPath Child Axis

Child Axis in *XPath* is used to find all the ***child nodes of the current node.*** Contrary to the ancestor axis, the child is quite helpful in locating elements if we can locate the parent element of the required node.

Syntax and usage of the child axis in XPath is:

```
//tag[@attribute ='Attribute_Value']//child::child_node
```

Let's see the previous example; assume that we can locate the ***"form"*** element but not able to find the ***"Full Name"*** label.



```
<!DOCTYPE html>
<html>
▶<head>…</head>
▼<body>
  ▼<div id="app">
    ▶<header>…</header>
    ▼<div class="body-height">
      ▼<div class="container playgound-body">
        ▼<div class="pattern-backgound playgound-header">
            <div class="main-header">Text Box</div>
          </div>
        ▼<div class="row">
          ▶<div class="col-12 mt-4  col-md-3">…</div>
          ▼<div class="col-12 mt-4 col-md-6"
            ▼<div class="text-field-containe
              ▼<form id="userForm" class>
                ▼<div id="userName-wrapper" class="mt-2 row">
                  ▶<div class="col-md-3 col-sm-12">…</div>
                  ▼<div class="col-md-9 col-sm-12">
                      <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
                    </div>
                  </div>
                ▶<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

Xpath Example:

The *XPath Expression* for the ***form*** node is:

```
//form[@id='userForm']
```

But we want to locate the `<label>` ***tag,*** which is two hierarchy below this element. Let's write the *XPath Expression* that can locate the label node.

```
//form[@id='userForm']/child::div[1]//label
```

Here we can see that this *XPath* comprises two parts, first before ***"child "*** and second part after the child. Both parts have to be in the proper format. Here we have first located the user form by using *'id'*. Then we used the ***"child "*** axis to navigate to the child node. Here we have used *index* ***"[1] "*** as we wanted to start from the first ***"div"*** if we wanted to start from the second div in the sequence, we could index it as ***"[2] "***. We have also used ***double slash,*** as we wanted to escape the next div to directly move to ***label tag,*** by using the *Relative XPath.*

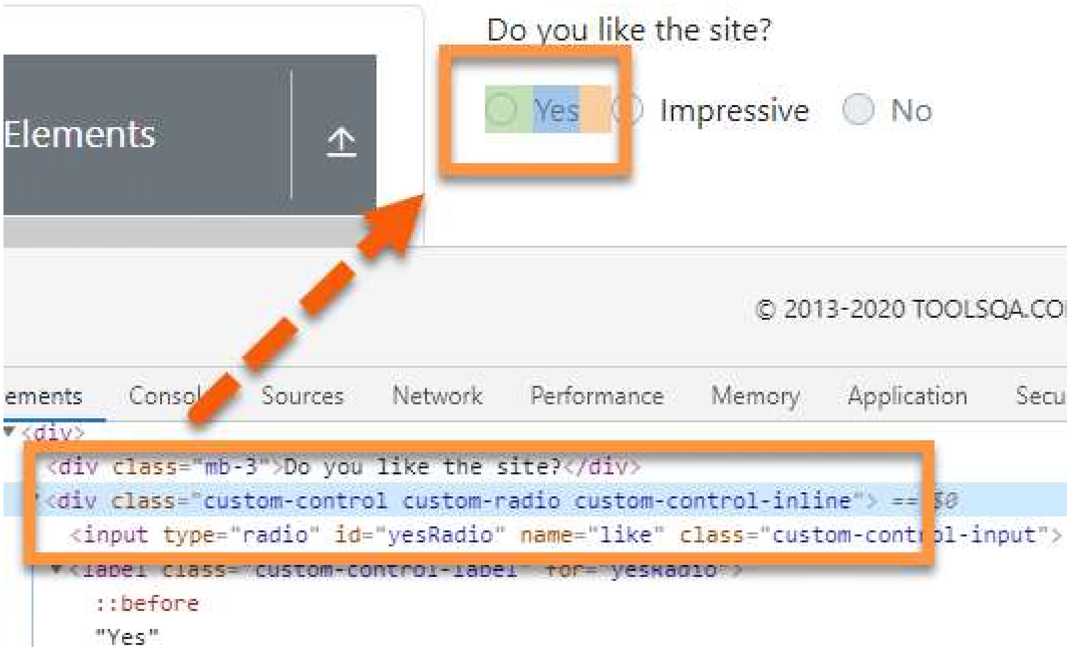
XPath Descendant Axis

The ***Descendant Axis*** is used to access ***all the children and sub-children of the current node.*** It is similar to the *child axis,* but the fundamental difference between descendant and child is; descendant identifies only the children and sub-children of the same node.

Syntax and usage of the descendant axis in the XPath:

```
//node[attribute='value of attribute']//descendant::attribute
```

Let's have a look at an example on the web page ***"https://demoqa.com/radio-button" :***



```
▼<div>
   <div class="mb-3">Do you like the site?</div>
  ▼<div class="custom-control custom-radio custom-control-inline"> == $0
     <input type="radio" id="yesRadio" name="like" class="custom-control-input">
    ▼<label class="custom-control-label" for="yesRadio">
       ::before
       "Yes"
```

In the above image, we can see that the parent node, i.e., *div* contains two different descendant nodes or child nodes. First is the ***radio button*** defined by the ***input*** tag, and the second one is a ***label tag*** that has the label for the radio button.

Xpath Example: Let's assume we can recognize the ***parent tag,*** but need to locate the radio button. We can do this by using the *descendant axis* to create the following *XPath.*

```
//div[@class= 'custom-control custom-radio custom-control-inline']/descendant::input
```

So, this *Xpath* will first search the node ***"div "*** with the given class and then search the *input* tag using the ***descendant axis.***

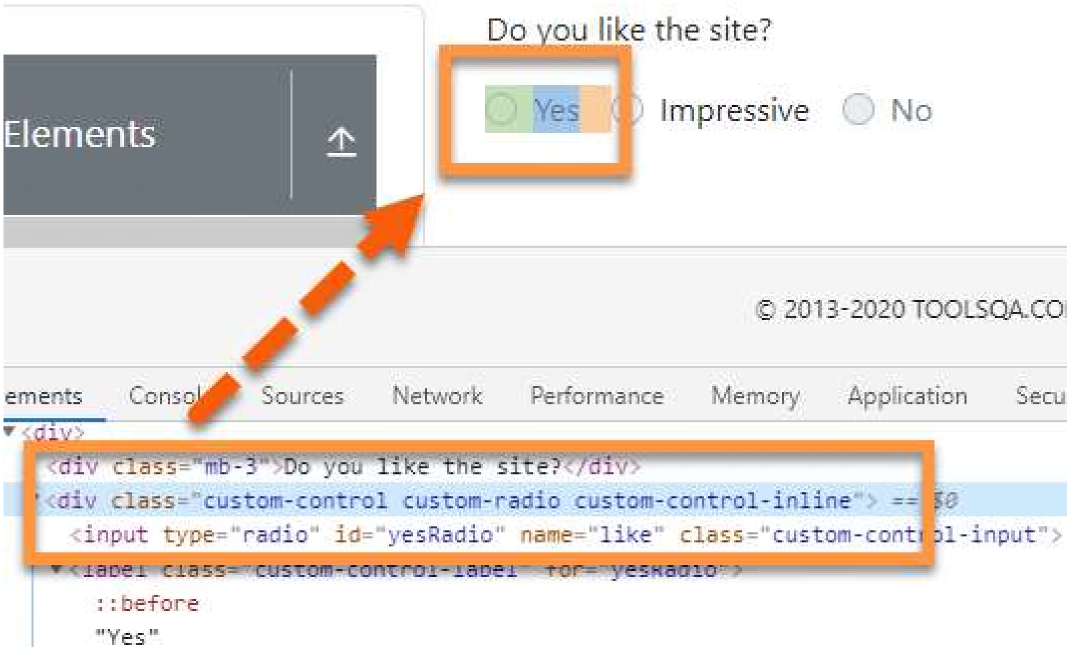
XPath Parent Axis

The ***Parent Axis*** is similar to the *ancestor* axis. It recognizes the immediate parent of the current node. The significant difference between *parent and ancestor* is; *ancestor* will recognize all upper hierarchical nodes, whereas the parent axis will only locate the ***immediate parent node.***

Syntax and usage Parent Axis in XPath:

```
//tag[@attribute ='Attribute_Value']//ancestor::parent_node
```

Let's take an example of the element we used in the previous section:



```
▼<div>
  <div class="mb-3">Do you like the site?</div>
 ▼<div class="custom-control custom-radio custom-control-inline"> == $0
   <input type="radio" id="yesRadio" name="like" class="custom-control-input">
  ▼<label class="custom-control-label" for="yesRadio">
     ::before
     "Yes"
```

Xpath Example: Here we have an *input* element that can be recognized. But let’s assume we want to locate the *parent* element of this node. To do that, we will use the ***parent axis*** with the *XPath.* So, the *XPath Expression* for the above elements will become:

//input[@id='yesRadio']/parent::div

If we have used ancestor here, the *XPath* would have returned all the upper hierarchical nodes, but as we have used ***parent,*** it will return the ***immediate parent node*** of the currently identified node.

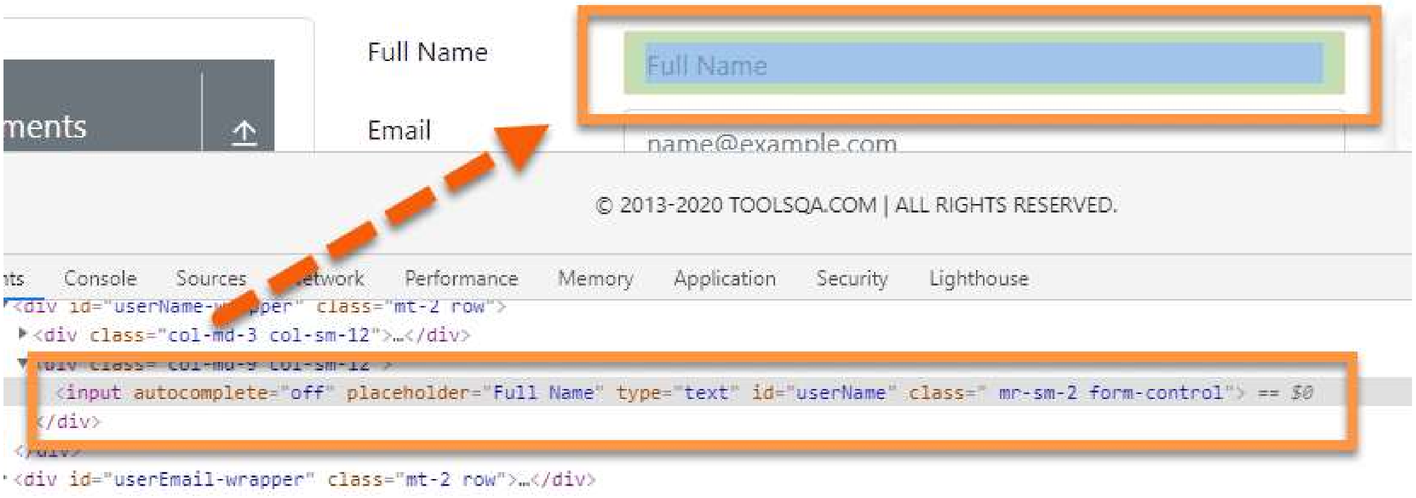
XPath Following Axis

The ***following axis*** locates the element ***after the current node.*** It marks the *current node* as the base and finds the required element present in the *DOM* after the current node.

Syntax and usage of the following axis in the XPath:

```
//node[attribute='value of attribute']//following::attribute
```

Let's have a look at the following example on the web page ***"https://demoqa.com/text-box" :***



```
<div id="userName-wrapper" class="mt-2 row">
  <div class="col-md-3 col-sm-12">…</div>
  <div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
  </div>
</div>
<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

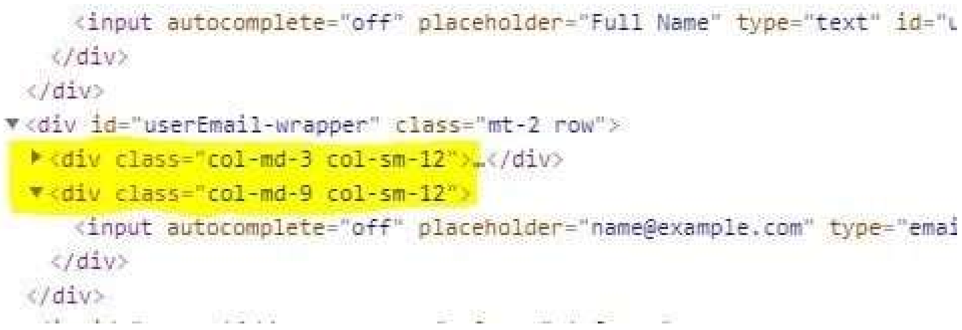
Xpath Example: In the above image, let's assume we have to locate the ***Full Name*** textbox by using ***id. Still, we*** also want to locate elements present after that textbox, for example, **"Current Address"** multi-line textbox or text area**.** So, the XPath Expression for the ***Current Address*** will be:

```
//input[@id="userName"]/following::textarea
```

One thing that we should note is when we use the *following axis,* it will recognize multiple tags if present in the DOM. If there is more than one ***"Textarea"*** node after the given textbox, then the XPath will point to all of them**.** The best practice is the always create unique XPaths, and if that's not possible, we may use index.

XPath Following sibling Axis

The *Xpath* ***following sibling axis*** is similar to the ***following*** axis. Following-sibling recognizes only ***sibling nodes,*** i.e., the nodes on *the same level of the current node*. For example, in the below image, both the highlighted "***div***" are on the same level, i.e., are siblings, whereas the ***"div "*** just above them is the parent.



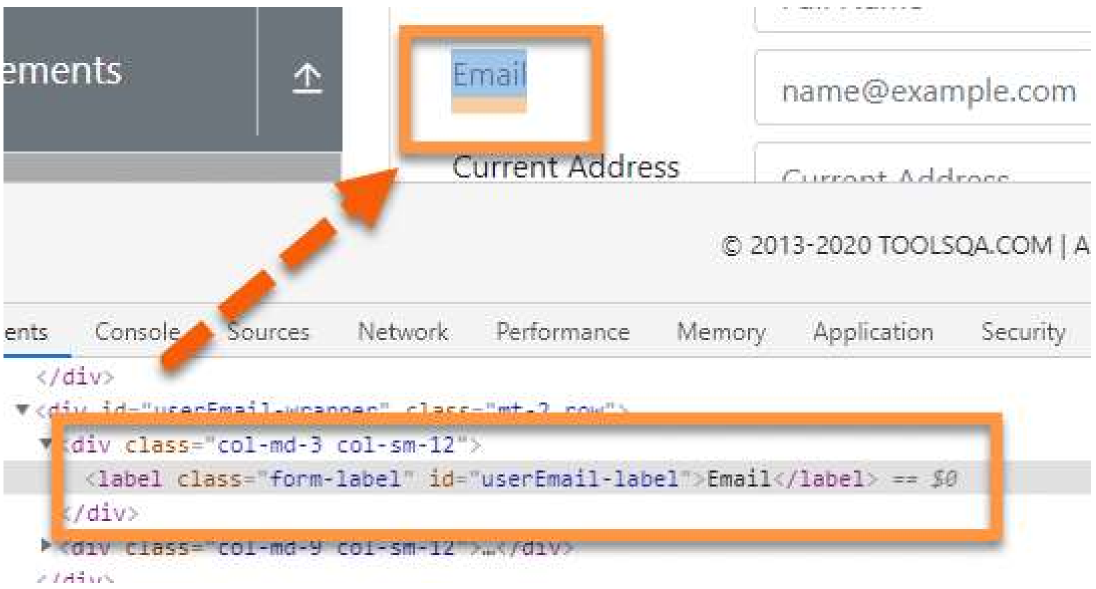
```
    <input autocomplete="off" placeholder="Full Name" type="text" id="u
  </div>
</div>
▼<div id="userEmail-wrapper" class="mt-2 row">
  ▶<div class="col-md-3 col-sm-12">…</div>
  ▼<div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="name@example.com" type="emai
  </div>
</div>
```

Syntax and usage of the following-sibling axis in the XPath:

```
//node[attribute='value of attribute']//following-sibling::attribute
```

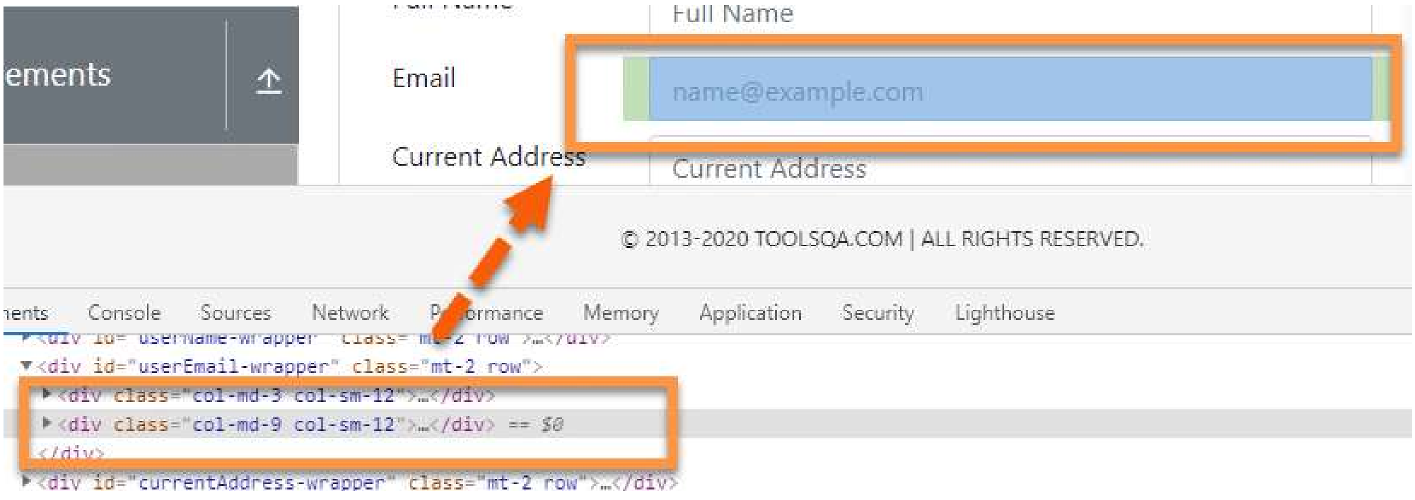
Let's understand the details with the help of the following example on the web page ***"https://demoqa.com/text-box" :***

Assume we have identified the following label ***"Email "*** represented by the `<div>` element:



```
</div>
▼<div id="userEmail-wrapper" class="mt-2 row">
  ▼<div class="col-md-3 col-sm-12">
     <label class="form-label" id="userEmail-label">Email</label> == $0
   </div>
  ▶<div class="col-md-9 col-sm-12">…</div>
</div>
```

And we need to identify its sibling ***"div "*** element, as shown below:



```
▸<div id="userName-wrapper" class="mt-2 row">…</div>
▾<div id="userEmail-wrapper" class="mt-2 row">
  ▸<div class="col-md-3 col-sm-12">…</div>
  ▸<div class="col-md-9 col-sm-12">…</div> == $0
 </div>
▸<div id="currentAddress-wrapper" class="mt-2 row">…</div>
```

Xpath Example: To identify this, we can use the XPath **following sibling axis.** So, the XPath Expression for this scenario will be:

```
//div[@class='col-md-3 col-sm-12']/following-sibling::div
```

But if there are multiple siblings with the same node, then XPath will identify all those various elements.

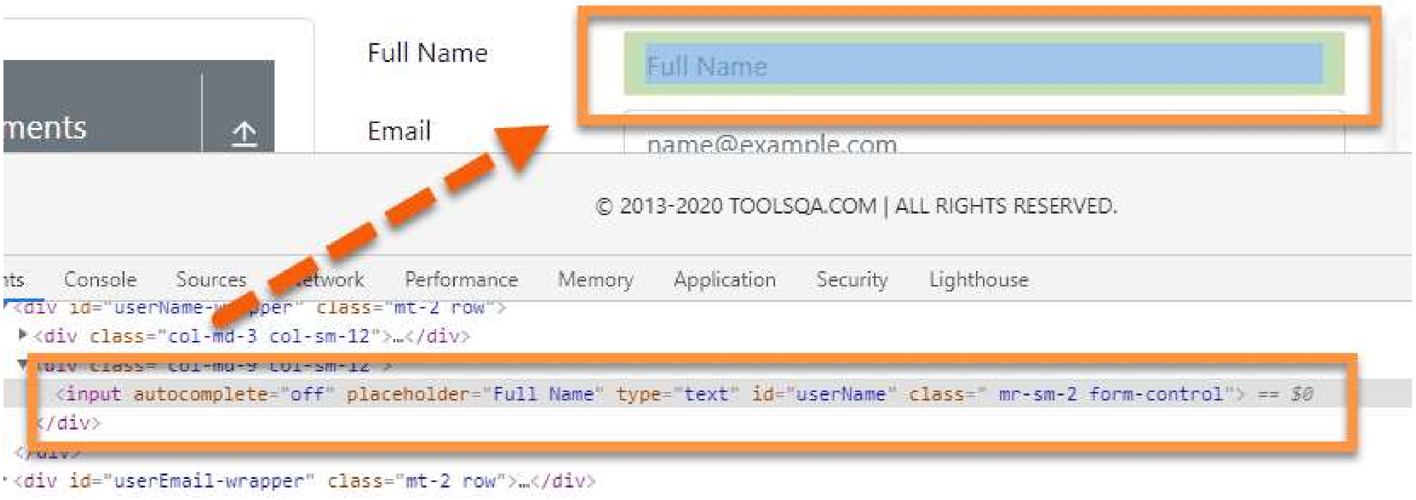
XPath Preceding Axis

The ***preceding axis*** is used in *XPath* to select ***all the nodes present before the current node.*** We use it when we can recognize any element above the mentioned element.

Syntax and usage of the Preceding Axis in the XPath will be:

```
//node[attribute='value of attribute']//preceding::attribute
```

Let's try to understand the usage of the ***Preceding Axis,*** with the help of the following example:



```
<div id="userName-wrapper" class="mt-2 row">
  <div class="col-md-3 col-sm-12">…</div>
  <div class="col-md-9 col-sm-12">
    <input autocomplete="off" placeholder="Full Name" type="text" id="userName" class=" mr-sm-2 form-control"> == $0
  </div>
</div>
<div id="userEmail-wrapper" class="mt-2 row">…</div>
```

In the above scenario, as the highlighted textbox contains ***"id"***, we can quickly locate it, but let's assume that we need to find the label of the element which is present ***just before that current node.*** To handle these scenarios, we use the ***"preceding axis"***. Now, we can write an XPath Expression to locate the label element as below:

```
//input[@id='userName']/preceding::label
```

Similar to what we discussed earlier, if there is more than one element with the same node above the current element, XPath will return multiple elements. We always need to make sure that we write unique XPaths for efficient element identification.

XPath Example: Usage of XPath functions and Axes in Selenium

The following code snippet shows a sample example of how we can use the various functions and axes provided by XPath in Selenium to identify and locate web elements uniquely:

```
package TestPackage;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class XPathDemo {

        public static void main(String args[]) {

        System.setProperty("webdriver.chrome.driver", "C:\\Selenium\\chromedriver\\chrome
        WebDriver driver = new ChromeDriver();
        driver.get("https://demoqa.com/text-box");

        //Using contains() to locate full name and enter data
        driver.findElement(By.xpath("//input[contains(@id, 'userN')]")).sendKeys("User Na

        //using placeholder
        driver.findElement(By.xpath("//input[contains(@placeholder, 'example')]")).sendKe

        //using start-with()
        driver.findElement(By.xpath("//input[starts-with(@placeholder,'Fu')]")).sendKeys(

        //using text() to get label
        String text = driver.findElement(By.xpath("//label[text()='Email']")).getText();

        System.out.println(text);

        //using AND operator to locate full name
        driver.findElement(By.xpath("//input[@placeholder ='Full Name' and @type = 'text'

        //using OR operator to locate full name
        driver.findElement(By.xpath("//input[@placeholder ='Full Name' or @type = 'text']

        //using ancestor to locate form tag
        boolean bol =driver.findElement(By.xpath("//label[text()='Full Name']/ancestor::f
        System.out.println("Form is displayed : "+bol);

        //using child to locate full name textbox from form
        String label = driver.findElement(By.xpath("//form[@id='userForm']/child::div[1]/
        System.out.println("The label text is : "+ label);


        //using decendent axis to locate yes radio
        driver.get("https://www.demoqa.com/radio-button");
        driver.findElement(By.xpath("//div[@class= 'custom-control custom-radio custom-co

        //using parent axis to locate yes radio
        boolean bo = driver.findElement(By.xpath("//input[@id='yesRadio']/parent::div")).
        System.out.println("The Yes radio is selected : "+bo);

        //using following axis to locate current address
        driver.get("https://demoqa.com/text-box");
        driver.findElement(By.xpath("//input[@id=\"userName\"]/following::textarea")).sen

        //using following-sibling to locate email
        driver.findElement(By.xpath("(//div[@class='col-md-3 col-sm-12']/following-siblin

        //using preceding-axis to locate full name
        String preceding = driver.findElement(By.xpath("//input[@id='userName']/preceding
        System.out.println("The value of preceding : "+preceding);
        }

}
```

When we run the above test script, it will locate all the mentioned web elements uniquely. This way, we can utilize the XPath functions and axes to choose effective XPath for uniquely locating the elements on a web page.

Key Takeaways

XPath can even locate elements in a dynamic web environment using its functions and axis, making it one of the most popular Selenium locators techniques.
We can create the XPath either by using ID, class, name, substring, or inner Text of a web element, or we can even use a combination of them using ***“AND”*** *or* ***“OR”*** *operators.*