

1)What is Xpath?

- **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.
- In Selenium automation, if the elements are not found by the general locators like id, class, name, etc. then XPath is used to find an element on the web page.

3)Types of Xpath?

There are two Types

- Absolute Xpath
- Relative Xpath

4)what is Absolute Xpath?

- Specifying the Complete path of the Element is Called as Absolute Xpath.
- To find the WebElement ,we have to come from Root of the Path called as HTML
- It is represented as /

5)Disadvantages of Absolute Xpath?

- It is very lengthy to Write
- Prone to Human error while Writing the path
- It is not possible to write path for Bigger Web Application with complex Hierarchy
- And, if there are any changes made in the path of the element then that XPath gets failed. And we will get **NoSuchElementException**.

6)what is Relative Xpath?

- **Relative Xpath** starts from the middle of HTML DOM structure.
- It is represented as //
- It can search elements anywhere on the webpage, means no need to write a long xpath and you can start from the middle of HTML DOM structure.

7)what are all the important Types of relative Xpath?

There Five Important Types

- Xpath by Attribute
- Xpath by Text Function
- Xpath by Contains Function
- Independent and Dependent Xpath
- Xpath by Index

8)Syntax for Xpath By Attribute

- `//TagName[@AN='AV'];`

9)Syntax for Xpath by Text Function?

- `//TagName[text()='Text Value'];`

10)Syntax for Xpath by Contains Function?

- `//TagName[contains(text(),'Text Value')];`

11)Syntax for Group of Index?

- `(Any Xpath)[index];`

12)why we Need to Go for Xpath contains function?

- When having an extra Spaces and some Special Characters in a Text at that Time we go for Contains Function.
- The main feature of contains function is that we can find elements with partial text.

13) why we Need to Go for independent and dependent Xpath?

Independent and Dependent xpath

--->when the text value of the web element is completely changing , at that time we can't use xpath like text function or contains function

---> to handle these kind of situation , we go for Independent and dependent xpath

Steps to follow

---> we need to find the independent element first

---> after ,we have to traverse to the common parent for both independent and dependent webElement

--->last ,we have to traverse to the targeted dependent webElement

14)How to traverse between Siblings?

--->for moving forward

following-sibling::tagName

--->for backward

preceding-sibling::TagName .

Shortcuts.

--->to parent `/..`

---> to child `/TagName`