Selenium

Class 3

Agenda

Locators: xpath, css selector

Test Case

TC 1: Facebook login:

1. Open chrome browser
2. Go to “https://www.facebook.com/”
3. Enter valid username and valid password and click login
4. User successfully logged in

TC 2: Mercury Tours Registration:

1. Open chrome browser
2. Go to “http://newtours.demoaut.com/”
3. Click on Register Link
4. Fill out all required info
5. Click Submit
6. User successfully registered

(Create 2 scripts using different locators)

Xpath

XPath is the language used when locating XML (Extensible Markup Language) nodes. Since HTML can be thought of as an implementation of XML, we can also use XPath in locating HTML elements.

- **Advantage:** It can access almost any element, even those without class, name, or id attributes.
- **Disadvantage:** It is the most complicated method of identifying elements because of too many different rules and considerations.

Types of Xpath:

1. Native Xpath(**Absolute)**

2. Relative Xpath

Native Xpath(Absolute)

Also called complete or full xpath. Absolute xpath starts from <html> tag or it starts from single slash (/).

it is like directing the xpath to go in direct way. like
html/body/div/div[5]/div/div/div/div/div/div/div/div[2]/div/form/fieldset/div[8]/input[@name='firstname']
Example: firstname field
toolsqa

Here the advantage of specifying native path is, finding an element is very easy as we are mention the direct path.

But if there is any change in the path (if something has been added/removed) then that xpath will break.

Relative Xpath

In relative xpath we will provide the relative path, it is like we will tell the xpath to find an element by telling the path in between.

A relative xpath is one where the path starts from the node of your choice - it doesn't need to start from the root node. It starts with Double forward slash (//).

Advantage here is, if at all there is any change in the html that works fine, until unless that particular path has changed. Finding address will be quite difficult as it need to check each and every node to find that path.
//table/tr/td

Create Customized xpaths

- To customize the xpath. It's very easy to create the **customized xpath**. Xpath has an fix structure like

```
//tag[@attribute='value']
```

- **Tag** is our HTML tag(like - div, input, name etc), **attribute** is our HTML attribute (like - Id, class etc), and **Value** is the value of that HTML attribute.

- XPath locators are very powerful and flexible. Any element on the page can be located via one or more XPaths and most other locators can be expressed as an XPath.

- Except CSS Selectors, no other locators share this feature. A well-written XPath can be very robust, but a poor XPath can be fragile, and may break when the application changes.