10-FEB-2020

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ADDRESSING WEBELEMENTS IN WD/LOCATORS

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Class: Set of similar objects we call as Class

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Ex: Animal, fruit, human , .... etc

Object: It is an instance of class

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Ex: Lion, Apple, Smith

Q. How will you identify a Lion/Apple/Smith??

Ans. In general every object will have some identification properties and behaviour

Using those property values we will be able to identify any object

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\*\* I.Q. How WD is able to identify WebElements?

\*\* WD is able to identify webelements during runtime using "LOCATORS"

\*\* Locators are used to address Webelements

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In general Developers will provide attribute / html property values for every Webelement , using those values we can address Webelement in WD

WebElement code in HTML page

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Syntax: <tagname attribute1= value attribute2= value attribute3=value....>

--- Webelement is the object in the application

Components which exists in the application

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Ex: "Username" editbox code

<input class = "input username" type="email" value=" " name="username" id="username" aria-describedby="error" style="display:block">

Here Tagname is---- input

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Attribute Name Attribute Value

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class "input username"

type "email"

value " "

name "username"

id "username"

aria-describedby "error"

style "display:block"

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Inspecting WebElement

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Navigation:

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Focus on webelement in a page

Right click on mouse

Use developer tool/ inspect option

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Note:

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Sometimes we can use "WebDeveloper" -- tools to inspect Webelement

Shortcut for Web Developer tools-- Ctrl + Shift + I

Shortcut for Inspector (Ctrl+Shift+C)

In Firefox -- Go to the top right side and click on the 3 lines

Go to Web Developer

Click on it and Go to Toggle Tool (Ctrl+Shift+I)

Inspector (Ctrl+Shift+C)

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\*Note: Whenever we are not able to do right click on the Webpage we can use "Web Developer tools" on Firefox

Whenever right click is not possible to perform

---> DOM -- (Document Object Model)

-- The Inspect page is called DOM

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\*\* I.Q. Firefox

Windows --> Web Developer Tools --> Inspect Element

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\*\* Addressing WebElement

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Syntax: driver.findElement(By.locatorName(locator value));

\*\*\* By -- is a static class provided in WD library which has the properties to identify webelement based on given locator value by comparing from root tag

tag/ node in a page

driver.findElement(By.id("username"));

Where driver is Browser-Page ; findElement -- Identify Component ; id="username"

public class -- By

By {

id(){

---

---

---

}

name(){

---

---

---

}

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WebDriver supports 8 types of locators , they are:

1. id

2. name

3. classname

4. linkText

5. partiallinkTet

6. tagName

7. xpath

8. cssSelector

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-- These are methods

-- In Selenium we term it as "Locators"

-- They are case-sensitive

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1. id:

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It is most commonly used locator to address webelement

\*\*\* In general id value of webelement is unique in a page

Syntax: driver.findElement(By.id(id value));

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Note:

We can use following methods to perform operations on webelements

(i) click():

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This method is used to perform mouse click (i.e. left (default click) on specified webelement

-- (Right click is termed as Context click)

Syntax: obj.click();

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(ii) sendKeys():

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This method is used to provide keyboard inputs to enter data in webelelement

Ex: To enter value in Editbox

Syntax: obj.sendKeys(data);

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Ex: Write script to perform login operation in Orange HRM project using valid data

AUT URL: https://opensource-demo.orangehrmlive.com/

Username: Admin

Password: admin123

Script: To login into Orange HRM\

// To initialize browser

System.setProperty("webdriver.chrome.driver",".\\Driver\\chromedriver.exe");

WebDriver driver=new ChromeDriver();

driver.get("https://opensource-demo.orangehrmlive.com/");

driver.manage().window().maximize();

// To perform login operation

driver.findElement(By.id("txtUsername")).sendKeys("Admin");

driver.findElement(By.id("txtPassword")).sendKeys("admin123");

driver.findElement(By.id("btnLogin")).click();

Note: click() and sendKeys are methods

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2. name:

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Sometimes we can also use "name" attribute value to address webelement

Syntax: driver.findElement(By.name(name value));

Ex: Write script to perform login operation in Mercury tours application using valid data

Url: http://newtours.demoaut.com

Username: mercury

Pwd: mercury

Script

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// Initializing Browser

\*\*\* Always these 4 lines will be common for any script

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Procedure:

Step 1: Open the browser

Step 2: navigate to Url

Step 3: enter username

Step 4: enter pwd

Step 5: click on "login"

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Note:

Prerequisites

-- WebDriver jar files

-- Server executable files

-- These has to be set in Eclipse

-- Need class to write scripts

\*\* -- Always copy the attribute value from DOM -- because it is case sensitive

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Script: To login into Orange HRM

// To initialize browser

System.setProperty("webdriver.chrome.driver",".\\Driver\\chromedriver.exe");

WebDriver driver=new ChromeDriver();

driver.get("https://opensource-demo.orangehrmlive.com/");

driver.manage().window().maximize();

// To perform login operation

driver.findElement("By.id("txtUsername").sendKeys("Admin");

driver.findElement("By.id("txtPassword").sendKeys("admin123");

driver.findElement("By.id("btnLogin").click();

Here: click(), sendKeys are "methods"

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driver.findElement("By.id("btnLogin").click();

Here: driver is Browser/Page , findElement is Identify Element , By is static class , click() is a method

===================================================================END OF CLASS===================================================================================