

Today's Topic:10-03-2022

WebElement Assignment Solution

```
package webElement_commands;

import org.openqa.selenium.By;

public class WebElementAssignment {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        String url = "https://opensource-demo.orangehrmlive.com/index.php/auth/login";

        System.setProperty("webdriver.chrome.driver",
            "C:\\Users\\MyDeLL\\Desktop\\Selenium_Sessions\\Drivers\\chromedriver_win32\\chromedriver.exe");

        WebDriver driver = new ChromeDriver();
        driver.get(url);

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

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

        WebElement loginBtn = driver.findElement(By.id("btnLogin"));

        loginBtn.click();

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

        String requestBtnTag = driver.findElement(By.id("buyBtn1")).getTagName();
        System.out.println("This is tagName for the RequestButton: " + requestBtnTag);

        String attrVal = driver.findElement(By.id("installButton2")).getAttribute("class");
        System.out.println("This is Class attribute value for the Install Button : " + attrVal);

        String hrmAddons = driver.findElement(By.xpath("//div[@class='head']/child::h1")).getText();
        System.out.println("This is Text value for the OrangeHRM Addons: " + hrmAddons);

        String cssVal = driver.findElement(By.xpath("//span[@id='notification']")).
            getCssValue("font-size");

        System.out.println("This is font-size css property of the notification icon: " + cssVal);

        boolean reqBtn = driver.findElement(By.id("buyBtn1")).isEnabled();
        System.out.println("Request button IsEnabled result: " + reqBtn);
    }
}
```

- Selenium Wait commands

1. Introduction

- Most of the web applications are developed using Ajax and Javascript.
- When a page is loaded by the browser the elements which we want to interact with may load at different time intervals.
- Not only it makes this difficult to identify the element but also if the element is not located it will throw an "ElementNotVisibleException" exception.
- Using Selenium Waits, we can resolve this problem.

IQ: 1. Write the Syntax for implicit wait
2. Write the Syntax for Explicit wait
3. Difference between Implicit wait and Explicit wait

2. Types of wait

a. Implicit wait:

- It is used to tell the browser to wait for certain amount of time before it throws an "NoSuch Element Exception"
- The default wait "0"
- Once we set the wait time , then the browser/driver will wait for the element for that time before throwing an Exception

Syntax: driver.manage().timeouts().implicitlyWait(TimeOut, TimeUnit.Seconds)

Selenium4: Syntax: driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(TimeOut));

b. Explicit wait:

- It is to tell the browser/ driver to wait until the condition fulfill/occurs before proceeding with the Exception
- It only applicable for the webElement
- The default wait "0"

Syntax: WebDriverWait wait = new WebDriverWait(webDriverInstance, timeout)

Selenium4: Syntax: WebDriverWait wait = new WebDriverWait(driver, Duration.ofSeconds(20));
wait.until(ExpectedConditions.Condition(Element));

Difference between Implicit wait and Explicit wait

| Implicit Wait | Explicit Wait |
|--|---|
| <ul style="list-style-type: none">• Implicit Wait time is applied to all the elements in the script | <ul style="list-style-type: none">• Explicit Wait time is applied only to those elements which are intended by us |
| <ul style="list-style-type: none">• In Implicit Wait, we need not specify "ExpectedConditions" on the element to be located | <ul style="list-style-type: none">• In Explicit Wait, we need to specify "ExpectedConditions" on the element to be located |
| <ul style="list-style-type: none">• It is recommended to use when the elements are located with the time frame specified in Selenium implicit wait | <ul style="list-style-type: none">• It is recommended to use when the elements are taking long time to load and also for verifying the property of the element like(visibilityOfElementLocated, elementToBeClickable,elementToBeSelected) |