Selenium WebDriver Training

Advanced User Interactions



The Golden Circle

What

Why

How

What is AUI?

To make a direct interaction with the web element in order to access the complex user gestures. .

Why do we need to use it?

To handle mouse and keyboard events during automation

How to handle AUI?

By instantiating the actions class to access the methods for performing AUI



More about Actions class...

- ✓ To perform Mouse events like Mouse hover, Drag and drop, scroll
- ✓ To work with keyboard events like control, shift and Alt keys.
- ✓ To handle theses, Selenium's interaction provides a special class –
 Actions Class
- ✓ Actions class provides to build sequence of action to be performed.



How to handle AUI?

Actions class is an API which uses low level interface (Action) to give input in the web browsers.

Syntax:

Actions act=new Actions (driver)

webdriver must be passed as argument

org.openqa.selenium.interactions.Actions;



Methods to handle mouse events:

Click() -click the current co-ordinates of the mouse pointer

<u>Click(WebElement)</u>- clicks the specified web Element.

<u>clickAndHold()</u> -Click and hold mouse button at the specified pointer co-ordinates.

<u>ClickAndHold(IWebElement)</u> – Click and hold the mouse button at the identified web Element.

ContextClick() - to enable the right click

contextClick(WebElement) – to enable the right click at the identified web Element.

Contd...



Contd...

doubleClick() - helps to double click the element.

doubleClick(WebElement target) – to double click at the middle of the identified web element.

<u>dragAndDrop</u>(WebElement source, WebElement target) – to click and hold the element(moves) from one location to other location.

<u>dragAndDrop</u>by(WebElement source, int x offset, int y offset) – to click and hold the element(moves) from one position to other position and then releases the button

x offset- shows the horizontal moves

y offset-shows the vertical moves



Contd...

moveByOffset(int x offset, int y offset) –moves the mouse from the current position to given offset.

x offset- shows the horizontal moves (negative value show the move towards left) y offset-shows the vertical moves (negative value show the move upwards)

moveToElement(WebElement target) - to assist in mouse hovering the element and get into the Element view.

moveToElement(WebElement target, int x offset, int y offset)- Moves the mouse to an offset from the element's in-view center point.

scrollByAmount(int deltaX, int deltaY)_-Scrolls by provided amounts with the origin in the top left corner of the viewport.

deltaX The distance along X axis to scroll using the wheel. A negative value scrolls left. **deltaY** The distance along Y axis to scroll using the wheel. A negative value scrolls



Methods to handle Keyboard events:

keyDown(charSequence key) –press and hold the required key in the keyboard without releasing it. Subsequent actions may assume it as pressed.

Examples : Keys.shift, Keys.Cntrl, keys.Alt

sendKeys(keysToSend) - sends a series of keystrokes onto the element

keyUp(charSequence key) –performs the key release action



Classroom

- 1. Load https://www.snapdeal.com/
- 2. Mouse hover on Men's Fashion and Click Shirts
- 3. Mouse hover on the first product and Click on Quick View
- 4. Add wait -->Thread sleep
- 5. Take a screenshot



Summary

- AUI ->Advanced user interactions –Mouse and Keyboard events
- Actions class → support class in selenium to interact with web elements using mouse and keyboard like drag and drop, hover ,double click..

