

Need to action Class

1. Most user interactions like clicking on a button, entering text in textbox can be done using the WebDriver Element Commands.

For e.g. Commands like

WebElement.click() is used to click on buttons and

WebElement.sendKeys() is used to enter text in text boxes.

Submitting a form can be done using the WebElement.submit() command.

Even interactions with drop-down are enabled using the Select class.

However, there are some complex interactions like Drag-n-Drop and Double-click which cannot be done by simple WebElement commands.

2. To handle those types of advanced actions we have the Actions class in Selenium.

What is Actions class in Selenium?

Actions class is a collection of individual Action that you want to perform.

For e.g. we may want to perform a mouse click on an element. In this case we are looking at two different Action

1. Moving the mouse pointer to the element
2. Clicking on the element

Individual action mentioned above are represented by a class called Action,

Collection of such Action is represented by the Actions class.

There is a huge collection of methods available in Actions class.

Actions class is an ability provided by Selenium for handling keyboard and mouse events.

handling these events includes operations such as drag and drop, clicking on multiple elements with the control key

```
Actions action = new Actions(driver);
```

```
action.moveToElement(element).click().perform();
```

Methods of Action Class :- Action class is useful mainly for mouse and keyboard actions.

Mouse Actions in Selenium:

doubleClick(): Performs double click on the element

clickAndHold(): Performs long click on the mouse without releasing it

dragAndDrop(): Drags the element from one point and drops to another

moveToElement(): Shifts the mouse pointer to the center of the element

contextClick(): Performs right-click on the element

Right click :- <https://swisnl.github.io/jQuery-contextMenu/demo.html>

Double click :- <https://api.jquery.com/dblclick/>

Move to element :- <https://www.ebay.com/>

drag and drop :- <https://jqueryui.com/droppable/>

click and hold :- <https://jqueryui.com/droppable/>

Keyboard Actions in Selenium:

sendKeys(): Sends a series of keys to the element

keyUp(): Performs key release

keyDown(): Performs keypress without release

```
Actions actions = new Actions(driver);
actions.
```

- build() : Action - Actions
- click() : Actions - Actions
- click(WebElement target) : Actions - Actions
- clickAndHold() : Actions - Actions
- clickAndHold(WebElement target) : Actions - Actions
- contextClick() : Actions - Actions
- contextClick(WebElement target) : Actions - Actions
- doubleClick() : Actions - Actions
- doubleClick(WebElement target) : Actions - Actions
- dragAndDrop(WebElement source, WebElement target) : Actions - Actions
- dragAndDropBy(WebElement source, int xOffset, int yOffset) : Actions - Actions
- equals(Object obj) : boolean - Object
- getClass() : Class<?> - Object
- hashCode() : int - Object
- keyDown(CharSequence key) : Actions - Actions
- keyDown(WebElement target, CharSequence key) : Actions - Actions
- keyUp(CharSequence key) : Actions - Actions
- keyUp(WebElement target, CharSequence key) : Actions - Actions
- moveByOffset(int xOffset, int yOffset) : Actions - Actions
- moveToElement(WebElement target) : Actions - Actions
- moveToElement(WebElement target, int xOffset, int yOffset) : Actions - Actions
- notify() : void - Object
- notifyAll() : void - Object
- pause(Duration duration) : Actions - Actions
- pause(long pause) : Actions - Actions
- perform() : void - Actions
- release() : Actions - Actions
- release(WebElement target) : Actions - Actions
- sendKeys(CharSequence... keys) : Actions - Actions
- sendKeys(WebElement target, CharSequence... keys) : Actions - Actions
- tick(Action action) : Actions - Actions
- tick(Interaction... actions) : Actions - Actions
- toString() : String - Object
- wait() : void - Object
- wait(long timeoutMillis) : void - Object
- wait(long timeoutMillis, int nanos) : void - Object

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What is Action Class?

Action Class, actually it is not a class but an ***Interface***.
It is only used to represent the ***single user interaction to perform*** the series of action items build by Actions class.

What is the difference between Actions Class and Action Class in Selenium?