

## Actions Class

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- Actions class is an ability provided by Selenium for handling keyboard and mouse events.
- In Selenium WebDriver, handling these events includes operations such as drag and drop, clicking on multiple elements with the control key, among others.
- These operations are performed using the advanced user interactions API.
- It mainly consists of *Actions* that are needed while performing these operations.

## How to perform mouse action

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- Action class is useful mainly for mouse and keyboard actions.
- In order to perform such actions, Selenium provides various methods.
- 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 centre of the element.
  - `contextClick()`: Performs right-click on the mouse.

### Step1. // find the element and store it into the reference variable

```
driver.get("https://demoqa.com/buttons");
```

```
WebElement doubleclick =  
driver.findElement(By.xpath("//button[@id='doubleClickBtn']"));
```

```
WebElement rightclick = driver.findElement(By.xpath("//button[text()='Right Click  
Me']"));
```

```
WebElement click = driver.findElement(By.xpath("//button[text()='Click Me']"));
```

### Step2. // Create an object of Actions class

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

### Step3. // call the various methods

```
act.moveToElement(doubleclick).doubleClick().build().perform();  
Thread.sleep(2000);  
act.moveToElement(rightclick).contextClick().build().perform();  
Thread.sleep(2000);  
act.moveToElement(click).click().build().perform();
```

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## How to perform Drag and drop operation

=====

```
package testJava;
```

```
import java.io.IOException;
```

```
import org.apache.poi.EncryptedDocumentException;
```

```
import org.openqa.selenium.By;
```

```
import org.openqa.selenium.WebDriver;
```

```
import org.openqa.selenium.WebElement;
```

```
import org.openqa.selenium.chrome.ChromeDriver;
```

```
import org.openqa.selenium.interactions.Actions;
```

```
public class aclass
```

```
{
```

```
    static WebDriver driver;
```

```
public static void main(String[] args) throws EncryptedDocumentException, IOException, InterruptedException
```

```
{
```

```
    System.setProperty("webdriver.chrome.driver",
```

```
"/Users/amitparate/Downloads/chromedriver");
```

```
    driver = new ChromeDriver();
```

```
    driver.get("https://jqueryui.com/droppable/");
```

```
    driver.switchTo().frame(0);
```

```
    Thread.sleep(3000);
```

```
    // find the draggable element and store it into the reference variable
```

```
    WebElement drag = driver.findElement(By.xpath("//div[@id='draggable']"));
```

```
    // find the drop element
```

```
    WebElement drop = driver.findElement(By.xpath("//div[@id='droppable']"));
```

```
    // Create an object of actions class
```

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

```
    // drag and drop method calling
```

```
    act.dragAndDrop(drag, drop).perform();
```

```
}
```

```
}
```