

Actions: Using actions class we can perform mouse operations, like click, double click, mouse over, mouse right click, drag and drop ..etc

```
//=====
import org.openqa.selenium.By;
import org.openqa.selenium.Keys;
import org.openqa.selenium.Point;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;
public class ActionsCommands
{
    public static void main(String[] args)
    {
        WebDriver Driver=new FirefoxDriver();
        //-----
        //Create object for action class
        Actions A=new Actions(Driver);
        //=====
        //To perform click
        A.click(Driver.findElement(By.id("id"))).perform();
        //To perform double click
        A.doubleClick(Driver.findElement(By.name("name"))).build().perform();
        //-----
        WebElement E=Driver.findElement(By.id("id"));
        A.click(E).perform();
        A.doubleClick(E).perform();
        //Mouse over
        A.moveToElement(E).perform();
        //-----
        WebElement src=Driver.findElement(By.id("id"));
        WebElement des=Driver.findElement(By.id("id"));
        //-----
        //Way 1 : drag and drop
        A.clickAndHold(src).perform();
        A.moveToElement(des).perform();
        A.release(des).perform();
        //-----
        //Way 2
        A.dragAndDrop(src, des).perform();
        //-----
        //How to take x and y co-ordinates of an element
        WebElement src1=Driver.findElement(By.id("id"));
        WebElement des1=Driver.findElement(By.id("id"));
        Point P=des1.getLocation();
        int XA=P.getX();
        int YA=P.getY();
        //-----
        A.dragAndDropBy(src1, XA, YA).perform();
        //-----
        //Mouse over on location
        A.moveByOffset(XA, YA).perform();
        A.moveToElement(des1, XA, YA).perform();
        //-----
        //Right click
        A.contextClick(E).perform();
        //-----
        A.sendKeys(Keys.ARROW_DOWN).perform();
        A.sendKeys(Keys.ARROW_RIGHT).perform();
        A.sendKeys(Keys.ENTER).perform();
        //-----
    }
}
```

Ex1: Mouse over on PIM

```
//=====
import org.openqa.selenium.By;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;
```

```

public class MoveToPIMElement
{
    public static void main(String[] args) throws Exception
    {
        System.setProperty("webdriver.chrome.driver",
"F:\\D-Drive\\FromC\\chromedriver_win32\\chromedriver.exe");
        ChromeDriver Brow = new ChromeDriver();
        Brow.get("http://apps.qaplanet.in/qahrm");
        Brow.manage().window().maximize();
        Thread.sleep(2000);
        Brow.findElement(By.name("txtUserName")).sendKeys("qaplanet1");
        Brow.findElement(By.name("txtPassword")).sendKeys("lab1");
        Brow.findElement(By.name("Submit")).click();
        Thread.sleep(2000);
        //-----
        //Create object for action class
        Actions A=new Actions(Brow);
        //Move to PIM/Mouse over on PIM
        WebElement PIM=Brow.findElement(By.id("pim"));
        //Mouse over on PIM
        A.moveToElement(PIM).perform();
        Thread.sleep(4000);
        Brow.findElement(By.LinkText("Add Employee")).click();
        //*****
        //Click on General
        WebElement admin=Brow.findElement(By.id("admin"));
        A.moveToElement(admin).perform();
        Thread.sleep(1000);
        WebElement Cinf=Brow.findElement(By.LinkText("Company Info"));
        A.moveToElement(Cinf).perform();
        Thread.sleep(1000);
        Brow.findElement(By.LinkText("General")).click();
        //*****
        Thread.sleep(2000);
        Brow.findElement(By.LinkText("Logout")).click();
        Thread.sleep(2000);
        Brow.close();
        Brow.quit();
        //=====
    }
}

```

=====

//Drag and drop example

```

package Examples;
import org.openqa.selenium.By;
import org.openqa.selenium.Point;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Action;
import org.openqa.selenium.interactions.Actions;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;

public class DragAndDrop
{
    public static void main(String[] args) throws Exception
    {
        System.setProperty("webdriver.chrome.driver", "D:\\D-Drive\\FromC\\chromedriver.exe");
        ChromeDriver driver = new ChromeDriver();
        //-----
        driver.manage().window().maximize();
        Actions act=new Actions(driver);
        //*****
        String URL="http://www.dhtmlx.com/docs/products/dhtmlxTree/index.shtml";
    }
}

```

```

        driver.get(URL);
        Thread.sleep(5000);
        //Take xpath of Thriller from First box
        WebElement
from=driver.findElement(By.xpath("//*[@id='treebox1']/div/table/tbody/tr[2]/td[2]/table/tbody/tr[2]/td[2]/table/tbody/tr
[1]/td[4]/span"));
        //Take xpath of Horror from Second box
        WebElement
to=driver.findElement(By.xpath("//*[@id='treebox2']/div/table/tbody/tr[2]/td[2]/table/tbody/tr[4]/td[2]/table/tbody/tr[1]
/td[4]/span"));
//Way 1

/*      act.clickAndHold(from).perform();
        act.moveToElement(to).perform();
        act.click(to).perform();
        Thread.sleep(1000);*/

//Way 2

/*
        Action dragdrop= act.clickAndHold(from).moveToElement(to).click(to).build();
        dragdrop.perform();
*/

//Way 3

//      act.dragAndDrop(from, to).perform();

//Way 4

        Thread.sleep(2000);
        //-----
        Point objTo=to.getLocation();
        //Get x and y
        int Tox=objTo.getX();
        int Toy=objTo.getY();
        //-----
        //act.dragAndDropBy(from, Tox, Toy).perform();
        //-----
        act.clickAndHold(from).perform();
        Thread.sleep(1000);
        act.moveToElement(to).moveByOffset(Tox, Toy).perform();
        Thread.sleep(1000);
        act.release(to).perform();
        Thread.sleep(6000);
//      driver.close();
//      driver.quit();
    }
}

```