Actions class in selenium: To perform the mouse and keyboard actions with the help of selenium then we have to use Actions class.

There are different methods in the actions class similar to the methods present inside the WebElement interface.

Example of Keyboard actions:

1. **Press the Tab key**

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://www.facebook.com/signup");

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

act.sendKeys(Keys.***TAB***).perform();

act.sendKeys(Keys.***TAB***).sendKeys("firstname").sendKeys(Keys.***TAB***).sendKeys("Surname field").build().perform();

WebElement mobilenumber = driver.findElement(By.*xpath*("//\*[@name='reg\_email\_\_']"));

act.click(mobilenumber).sendKeys("9876543210").build().perform();

}

}

Note: for performing single action we have to use perform method. But for more than one action we have to use build().perform().

Down arrow key handling:

**public** **static** **void** main(String[] args) **throws** InterruptedException {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://www.google.com");

WebElement searchbox = driver.findElement(By.*xpath*("//\*[@title='Search']"));

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

act.click(searchbox).sendKeys("Selenium").build().perform();

Thread.*sleep*(2000);

act.sendKeys(Keys.***ARROW\_DOWN***)

.sendKeys(Keys.***ARROW\_DOWN***)

.sendKeys(Keys.***ENTER***)

.build().perform();

}

}

Autosuggestion handling:

**public** **static** **void** main(String[] args) **throws** InterruptedException {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://www.google.com");

WebElement searchbox = driver.findElement(By.*xpath*("//\*[@title='Search']"));

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

act.click(searchbox).sendKeys("Selenium").build().perform();

Thread.*sleep*(2000);

List<WebElement> searchresults = driver.findElements(By.*xpath*("//\*[@jsname='bw4e9b']//span[text()='selenium']"));

**for**(WebElement result :searchresults)

{

String value = result.getText();

**if**(value.equals("selenium webdriver"))

{

result.click();

**break**;

}

System.***out***.println(value);

}

}

}

Copy and Paste:

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://www.facebook.com/signup");

WebElement firstname = driver.findElement(By.*xpath*("//\*[@name='firstname']"));

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

// type and select all operation

act.sendKeys(firstname, "Velocity").keyDown(Keys.***CONTROL***).sendKeys("a").keyUp(Keys.***CONTROL***).build().perform();

// copy the text

act.keyDown(Keys.***CONTROL***).sendKeys("c").keyUp(Keys.***CONTROL***).build().perform();

// paste the copied content to the next field

act.sendKeys(Keys.***TAB***).keyDown(Keys.***CONTROL***).sendKeys("v").keyUp(Keys.***CONTROL***).build().perform();

}

Mouse Hover on particular element:

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://opensource-demo.orangehrmlive.com/index.php/dashboard");

WebElement username = driver.findElement(By.*xpath*("//input[@name='txtUsername']"));

username.sendKeys("Admin");

driver.findElement(By.*xpath*("//input[@id='txtPassword']")).sendKeys("admin123");

driver.findElement(By.*xpath*("//input[@type='submit']")).click();

WebElement adminlink = driver.findElement(By.*xpath*("//a[@id='menu\_admin\_viewAdminModule']"));

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

act.moveToElement(adminlink).perform();

}

Right click operation through Actions class:

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

driver.get("https://opensource-demo.orangehrmlive.com/index.php/dashboard");

WebElement username = driver.findElement(By.*xpath*("//input[@name='txtUsername']"));

username.sendKeys("Admin");

driver.findElement(By.*xpath*("//input[@id='txtPassword']")).sendKeys("admin123");

driver.findElement(By.*xpath*("//input[@type='submit']")).click();

WebElement recruitmentlink = driver.findElement(By.*xpath*("//\*[@id='menu\_recruitment\_viewRecruitmentModule']"));

Double click operation:

// performing rightclick on the recruitment link

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

act.contextClick(recruitmentlink).perform();

driver.get("https://chercher.tech/practice/practice-pop-ups-selenium-webdriver");

// Performing double click operation

WebElement doubleclickbutton = driver.findElement(By.*xpath*("//\*[@id='double-click']"));

act.doubleClick(doubleclickbutton).perform();

driver.switchTo().alert().accept();

}

Iframe: It is nothing but a special functionality which is attached with the webpage and the tag name of iframe is <iframe>.

To handle the iframe and the components inside the iframe we have to first switch to the frame then we can perform the operation.

Example;

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

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

WebElement iframe = driver.findElement(By.*xpath*("//\*[@class='demo-frame']"));

driver.switchTo().frame(iframe);

WebElement slidecomponent = driver.findElement(By.*xpath*("//\*[@class='ui-slider-handle ui-corner-all ui-state-default']"));

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

act.clickAndHold(slidecomponent).moveByOffset(250, 0).moveByOffset(-100, 0).release().build().perform();

Drag and Drop handling:

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.chrome.driver", "E:\\desktop\\Katraj\\15 Jan\\Selenium\\chromedriver.exe");

WebDriver driver = **new** ChromeDriver();// chrome browser will get open

driver.manage().window().maximize();// to maximize the window

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

WebElement iframe = driver.findElement(By.*xpath*("//\*[@class='demo-frame']"));

driver.switchTo().frame(iframe);

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

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

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

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

}

}