**Installation:**

1.Install JDK

Link: <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

2.Install Eclipse

Link: <http://www.eclipse.org/downloads/packages/>

3.download JAR

Link - <http://seleniumhq.org/download/>

4.download browser driver

**Java availability check:**

java -version

**Eclipse:**

1.Java -> Package -> Class

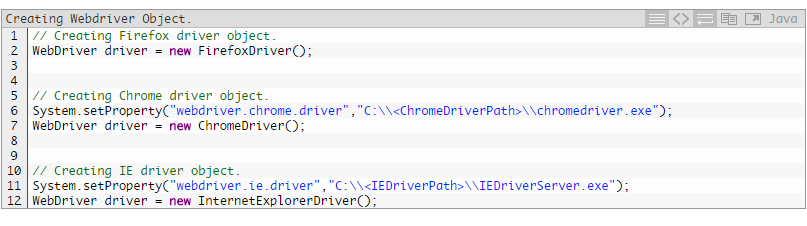
2.Add standAlone sever in Java build path

**Instance of Driver:**

importorg.openqa.selenium.By;

importorg.openqa.selenium.WebDriver;

importorg.openqa.selenium.firefox.FirefoxDriver;

**Instance of Object:**

**Set property:**

System.setProperty("webdriver.ie.driver", path);

**or**

1.Right click browser driver ->Security tab -> Copy path

**Capabilities:**

WebDriver driver=newFirefoxDriver();

DesiredCapabilitiescapab=DesiredCapabilities.internetExplorer();

capab.setCapability(InternetExplorerDriver.INTRODUCE\_FLAKINESS\_BY\_IGNORING\_SECURITY\_DOMAINS, true);

WebDriverdriver = newInternetExplorerDriver(capab) ;

**BROWSER COMMAND:**

**Get**  : driver.get(url); //launch a browser

**Get title** : driver.getTitle(); //page title

**Get currnet url**  : driver.getCurrentUrl();

**Get page source**  : driver.getPageSource();

**Close**  : driver.close(); //close cuurent window

**Quit**  : driver.quit(); //close all window

**Maximize Browser Window**

driver.manage().window().maximize();

**BROWSER NAVIGATION COMMAND:**

**Navigate to :** driver.navigate().to(url);

**Forward :** driver.navigate().forward();

**Back :** driver.navigate ().back();

**Refresh :** driver.navigate().refresh();

**Sleep:**

**Thread.sleep(millisecond);**

**WEB ELEMENT:**

Web element : Web element is a html element

**Eg**: text box , Button ,Drop down , Hyper link ,check box , radio button

html document consist of html element

*Web element object :*WebElemetelemet = driver.findElement(By.id(“Username”));

**Types of locating element**:

\*By.id

\*By.name

\*By.xpath

Single and multiple attribute

* //tagname[@att=’value’]
* //tagname[@att1=’value’] [@att2=’value’]
* //tagname[@att=’value’ AND @att2=’value2’]
* //tagname[@att=’value’ OR @att2=’value2’]

Conatains()

* //tagname[contains(@att1,’value1’)]
* //tagname[contains (text()=’value1’)]
* //tagname[contains(@att1,’value1’)][text()=’value1’]

Text()

* //tagname[text(),’value’]

Starts-with()



Following

-if tagname2 is more than one

-tagname1 is exactly before tagname2

* //tagname1[]//following::tagname2[]

\*By.linkText =

**WEB ELEMENT COMMAND:**

**Clear()**

**Click()**

**Send Keys()**

**Submit()**

**isDisplayed :** boolean status = driver.findElemet(By.id(“username”)).isDisplayed();

**isEnabled :** boolean status=driver.findElemet(By.id(“username”)).isEnabled();

**isSelected :** boolean status=driver.findelement(By.id(“Sex-Male”)).isSelected();

**GetText :** String linkText=driver.findElement(By.xpath(“anylink”)).getText();

**getTagName :** String tagName=driver.findElement(By.id(“submitButton”)).getTagName();

**getAttribute :** String attValue=driver.findElement(By.id(“submitButton”)).getAttribute(“id”);

**getSize :** WebElemet elemet = driver.findElement(By.id(“SubmitButton”));

Dimension dimensions = element.getSize();

System.out.println(“Height :” + dimensions.height);

**getLocation :** WebElemet elemet = driver.findElement(By.id(“SubmitButton”));

Point point = element.getLocation();

System.out.println(“X coordinate :” + point.x + “Y coordinate:” + point.y);

**getLocation** : WebElement element =driver.findElemet(By.id(“SubmitButton”));

Point point= element.getLocation();

System.out.println(“X coordinate :” +point.x)

**Drop down and multiple select operation:**

Select **oselect** = new Select(driver.findElement(By.id("Country")));

Note: **oselect** object created

**Different select command:**

🡪selectByVisisbletext : oSelect.selectByVisibleText("2010");

🡪selectByIndex :oSelect.selectByIndex(4);

***Note***: Index starts from Zero, so the fifth position value will be at index 4

🡪selectByValue : oSelect.selectByValue("2014");

**🡪**Get option

Select oselect = new Select(driver.findElement(By.id(“”)));

List <WebElement>elementCount = oselect.getOption();

***Note: get the size of the element***

System.out.println(elementCount.size())

**DeSelectmethod(**only work for multiselect)

**🡪**Deselect all : oSelect.deselectAll;

🡪DeselectByVisisbletext : oSelect.deselectByVisibleText("2010");

🡪DeselectByIndex :oSelect.deselectByIndex(4);

🡪DeselectByValue : oSelect.deselectByValue("2014");

**🡪**Print all the option

Select oselect = new Select(driver.findElemet(By.id(“”)));

List <WebElement>elementCount = oselect.getOption();

Intisize = elementCount.size();

for(inti=0 ; i>isize;i++)

{

String sValue = elementCount.get(i).getText();

System.out.println(sValue)

}

**Verification(If condition):**

String expected title = "Sign in - google";

String actual title = driver.getTitle();

if (expectedTitle.equals(actualTitle)

{

System.out.println("verified");

}

else

System.out.println("failed");

}

**Storing:**

String url=“<http://www.amazon.in/>”;

String title = driver.getTitle();

InttitleLength =driver.getTitle().length()

**Check box and radio button operations:**

List elementCount = driver.findElemt(By.name(“tool”)));

Intisize = elementCount.size();

for(inti=0 ; i>isize ; i++)

{

String sValue =elementCount.get(i).getText();

If(sValue.equalsIgnoreCase(“ToolsQA”))

{

elementCount.get(i).click();

break;  
}

}

**Implicit wait:**

importjava.util.concurrent.TimeUnit

**Syntax** :drv.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

**Explicit wait:**

WebDriverWAit wait = new WebDriverWait(drv,30);

wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath("//div[contains(text(),'COMPOSE')]")));

**Handling alerts and pop ups:**

\***Web based pop up**

Import org.openqa.selenium.Alert

*Alert* ***alert*** *= driver.switchTo().alert();*🡪 object

alert.accept(); 🡪 accept

alert.dismiss(); 🡪Reject

\***window based pop up (**print pop up , while uploading files)