//Launch Browser

System.*setProperty*("webdriver.chrome.driver","\\LOCATION\\chromedriver.exe");

System.*setProperty*("webdriver.gecko.driver","\\ LOCATION \\geckodriver.exe");

WebDriver driver = **new** FirefoxDriver();//Opens the Firefox empty browser

driver.get("URL/ADERESS");//to navigate the empty browser to URL/ADERESS

WebDriver driver = **new** ChromeDriver(); //Opens the chrome empty browser

driver.get("URL/ADERESS");//to navigate the empty browser to URL/ADERESS

driver.findElement(By.LOCATORS(“ ”)).METHODS();//to find and get the element

WebElement obj = driver.findElement(By.LOCATORS(“ ”)).METHODS();//store in a object To Perform Multiple operations

System.out.println(“driver.findElement(By.LOCATORS(“ ”)).METHODS()”);//to print the find element

List<WebElement> obj = driver.findElements(By. tagName (“”)).METHODS();

driver.get(STRING)

driver.getText()

driver.getCurrentUrl()

driver.getPageSource()

driver.navigate.to(STRING)

driver.naviga.back()

driver.navigate.forward()

driver.navigate.refresh()

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

driver.switchTo().window(OBJECT);// whn multiple windows open thn to point the particular window

driver.close();

driver.quit()

**Handling timeouts**

TimeUnits(DAYS,HOURS,SECONDS,MINUTES,MICRO SECONDS,MILLI SECONDS,NANO SECONDS)

implicityWait(long,TimeUnit.)//waits upto the given TimeUnit to load a page

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

explicityWait //waits upto the given TimeUnit to load a particular thing

WebDriverWait wait = new WebDriverWait(driver, 10);

wait.until(ExpectedConditions.presenceOfElementLocated(By.name("password")));

Thread.sleep(time);

driver.manage().timeouts().**pageLoadTimeout**(long,TimeUnit.)

driver.manage().timeouts().**setScriptTimeout**(long,TimeUnit.)

**HandlingDropDowns**

public class HandlingDropDowns {

public static void main(String[] args) {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the chrome browser

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

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

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

driver.findElement(By.name("firstname")).sendKeys("selenium");

driver.findElement(By.name("lastname")).sendKeys("selenium");

driver.findElement(By.name("reg\_email\_\_")).sendKeys("selenium@gmail.com");

driver.findElement(By.name("reg\_passwd\_\_")).sendKeys("selenium");

Select months = new Select(driver.findElement(By.id("month")));

months.selectByVisibleText("Mar");

months.selectByValue("2");

months.selectByIndex(6);

Select day = new Select(driver.findElement(By.id("day")));

day.selectByVisibleText("24");

Select year = new Select(driver.findElement(By.id("year")));

year.selectByVisibleText("1990");

driver.findElement(By.id("u\_0\_i")).click();

driver.findElement(By.id("u\_0\_m")).click();

} }

**SELECT CLASS**

Select months = new Select(driver.findElement(By.id("month")));

Select day = new Select(driver.findElement(By.id("day")));

Select year = new Select(driver.findElement(By.id("year")));

.selectByVisibleText("Mar");//STRING

.selectByValue("2"); //STRING

.selectByIndex(6);//int

**RETRIVE DATA FOR DROPDOWN**

WebElement month =driver.findElement(By.id("month"));

List<WebElement> months=month.findElements(By.tagName("option"));

// Retriving Specific/Particular Data **(INDEX VALUE 0\_n-1)**

System.out.println(months.get(1).getText());

System.out.println(months.get(3).getText());

System.out.println(months.get(0).getText());

// Retriving Whole Loop of Data

for(int i=0;i<months.size();i++)

{

System.out.println(months.get(i) .getText());

}

**METHODS**

System.out.println(months.size())

.selectByVisibleText(" ");

.selectByValue(" ");

.selectByIndex(INDEX);

**.size()**

**.get() .getText()**

**EXCELL FILES (Jxl.Jar)**

public class ReadDataFromExcel {

public static void main(String[] args) throws BiffException, IOException {

// TODO Auto-generated method stub

Workbook wb = Workbook.getWorkbook(new File("D:\\TestData\\Testdata.xls"));

Sheet sh = wb.getSheet("Months");

System.out.println(sh.getCell(1, 0).getContents());

System.out.println(sh.getColumns());

System.out.println(sh.getRows());

for(int i=1;i<sh.getRows();i++)

{

System.out.println(sh.getCell(1, i).getContents());

}

**Workbook class**

**Sheet class**

**Cell class**

Workbook wb = Workbook .getWorkbook(new File(“LOCATION.xls"));

Sheet sh = wb.getSheet("Months");

CELL(column,row) // prints particular cell data

.getCell(1, 0).getContents()); //INDEX

ROW// prints particular row data

.getRows(INDEX).getContents()); //INDEX

COLUMN// prints particular row data

.getColumns(INDEX).getContents()); //INDEX

.getColumns()); //prints total no of columns in the sheet

.getRows()); //prints total no of rows in the sheet

// Retrieve complete sheet data

for(int i=1;i<sh.getRows();i++) // i<sh.getRows() i<sh.getColumns() whoes size is big

{

System.out.println(sh.getCell(1, i).getContents());

}

**METHODS**

**getWookBook(**new File(“LOCATION.xls")**)**

**getSheet(“name”)**

**getCell(INDEX,INDEX)**

**getRows()**

**getColumns()**

**getContents()**

**Validate Dropdown Data in the web site and with Actual our Data in Excell file/Excell sheet**

public class ValidateDropDown {

public static void main(String[] args) throws BiffException, IOException {

// TODO Auto-generated method stub

List<String> actual\_months =new ArrayList<String>();

List<String> expected\_months =new ArrayList<String>();

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the chrome browser

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

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

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

WebElement month =driver.findElement(By.id("month"));

List<WebElement> months=month.findElements(By.tagName("option"));

for(int i=0;i<months.size();i++)

{

actual\_months.add(months.get(i).getText());

}

Workbook wb = Workbook.getWorkbook(new File("D:\\TestData\\Testdata.xls"));

Sheet sh = wb.getSheet("Months");

for(int i=1;i<sh.getRows();i++)

{

expected\_months.add(sh.getCell(1, i).getContents());

}

Assert.assertEquals(expected\_months, actual\_months);

System.out.println("DROP DOWN IS PASSED");

}

}

**METHODS**

**.add()**

**.equals(“object”)**

**Handling Table**

public class RetriveDataFromTable {

public static void main(String[] args) {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the chrome browser

driver.get("http://content.icicidirect.com/idirectcontent/Home/Pricing.aspx");

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

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

WebElement table=driver.findElement(By.xpath("//\*[@id='tab1']/div[1]/div[2]/table"));

WebElement tbody=table.findElement(By.tagName("tbody"));

List<WebElement> rows = tbody.findElements(By.tagName("tr"));

for(int i=0;i<rows.size();i++)

{

List<WebElement> cols =rows.get(i).findElements(By.tagName("td"));

for(int j=0;j<cols.size();j++)

{

System.out.println(cols.get(j).getText());

}

}

**<TABLE>** WebElement table=driver.findElement(By.xpath("//\*[@id='tab1']/div[1]/div[2]/table"));

**<tbody>** WebElement tbody=table.findElement(By.tagName("tbody"));

**<tr>ROWS multiple rows**

List<WebElement> rows = tbody.findElements(By.tagName("tr"));

**<td>Table Data multiple columns of each row**

List<WebElement> cols =rows.get(i).findElements(By.tagName("td"));

**//Prints cmplt table data**

WebElement table=driver.findElement(By.xpath("//\*[@id='tab1']/div[1]/div[2]/table"));

WebElement tbody=table.findElement(By.tagName("tbody"));

List<WebElement> rows = tbody.findElements(By.tagName("tr"));

for(int i=0;i<rows.size();i++)

{

List<WebElement> cols =rows.get(i).findElements(By.tagName("td"));

for(int j=0;j<cols.size();j++)

{

System.out.println(cols.get(j).getText());

}}

**//Prints ROW data** System.out.println(rows.get(INDEX).getText());

**//Prints COL data** System.out.println(cols.get(INDEX).getText());

**//Prints Particular ROW,COL data** System.out.println(tbody.get(ROW\_INDEX,COLS\_INDEX).getText());

//\*[@id="tab1"]/div[1]/div[2]/table/tbody/tr[6]/td[2]

rows.size()// no of rows

cols.size()// no of cols

**METHODS**

**.size()**

**.get(**INDEX**)**

**.getText()**

**Handling Links**

public class RetriveTheLinksOfAPage {

public static void main(String[] args) {

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the chrome browser

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

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

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

List<WebElement> links=driver.findElements(By.tagName("a"));

System.out.println("Number of elements are: "+links.size());

for(int i=0;i<links.size();i++)

{

System.out.println(links.get(i).getText());

System.out.println(links.get(i).getAttribute("href"));

System.out.println("==========================");

}

}

**<a> Ancor Tag** List<WebElement> links=driver.findElements(By.tagName("a"));

**href---- Attribute**

**//pints total no of links in a page**

System.out.println("Number of elements are: "+links.size());

**//pints particular link in a page with link Name/Text**

System.out.println(links.get(INDEX).getText());

**//pints particular link in a page with link Aderess/URL**

System.out.println(links.get(INDEX).getAttribute("href"));

**//pints all links in a page with link Name/Text And with link Aderess/URL**

for(int i=0;i<links.size();i++)

{

System.out.println(links.get(i).getText());

System.out.println(links.get(i).getAttribute("href"));

System.out.println("==========================");

}

}

**METHODS**

**.size()**

**.get(**INDEX**)**

**.getText() // link Name/Text**

**.getAttribute(“href ”) // link Aderess/URL**

**Take Screenshot**

public class ScreenshotTake {

File screenshot = ((TakesScreenshot)driver).getScreenshotAs(OutputType.FILE);

FileUtils.copyFile(screenshot, new File("D:\\screenshot\\test123.jpg"));

**Take Screenshot Class** File FileUtils

**getScreenshotAs(Output Type.\_\_\_)**

.copyFile(screenshot, new File("LOCATION.jpg"));

**3 Output Types**

**FILE//file**

**BASE64//arrays**

**Bytes//arrays**

**HandlingAlerts**

public class HandlingAlerts {

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

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the chrome browser

driver.get("http://www.ksrtc.in/oprs-web/");

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

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

driver.findElement(By.id("searchBtn")).click();

Thread.sleep(5000);

Alert al=driver.switchTo().alert();

System.out.println(al.getText());

al.accept();

//al.dismiss();

//al.sendKeys(arg0);

}

}

**Alert Class**

**alert()**

**Driver.switchTo().alert()//**move the control from main page to alert window

**accept() //**ok

**dismiss() //**x

**getText() //**alert msg

**sendKeys()**

**Handling Multiple windows Or POP up Windows**

public class HandlingMultipleWindows {

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

System.setProperty("webdriver.chrome.driver","D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver = new ChromeDriver(); //Opens the firefox browser

driver.get("file:///D:/Site4Guide.com/Jobs.html");

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

String parentHandle = driver.getWindowHandle();

driver.findElement(By.xpath("//\*[@id='container']/div[1]/div/a/img")).click();

Thread.sleep(10000);

Set<String> handles=driver.getWindowHandles();

Iterator<String> itr=handles.iterator();

while(itr.hasNext())

{

String uniqueid = itr.next();

driver.switchTo().window(uniqueid);

System.out.println(driver.getTitle());

System.out.println(uniqueid);

if(driver.getTitle().equals("Jobs - Recruitment - Job Search - Employment - Job Vacancies - Naukri.com"))

{

driver.findElement(By.xpath(".//input[@value='Register with us']")).click();

}

if(!parentHandle.equals(uniqueid))

{

driver.close();

}

}

driver.switchTo().window(parentHandle);

}

}

**METHODS**

String parentHandle = driver.getWindowHandle(); //to get and store parent window unique Id

// To print a current window id nd title

System.out.println(driver.getWindowHandle().getTitle());

Set<String> handles=driver.getWindowHandles(); //to get all child windows unique Id’s

Iterator<String> itr=handles.iterator(); // to store all child windows unique Id’s

.hasNext() //to check there is anything next

.next(); // to the pointer to next position

driver.switchTo().window()/window(OBJECT)-whn multiple windows open thn to point the particular window

driver.close(); // to close all windows one by one

.equals(object)//validate

.getTitle()); // to find which window it is

// To print all set of windows id’s nd titles

Set<String> handles=driver.getWindowHandles();

Iterator<String> itr=handles.iterator();

while(itr.hasNext())

{

String uniqueid = itr.next();

driver.switchTo().window(uniqueid);

System.out.println(driver.getTitle());

System.out.println(uniqueid);

**UploadingAFile (AutoIT Application-----Desktop)**

public class UploadingAFile {

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

System.setProperty("webdriver.chrome.driver", "D:\\chromedriver\_win32\\chromedriver.exe");

WebDriver driver=new ChromeDriver();

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

driver.get("http://convertonlinefree.com/");

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

driver.findElement(By.id("MainContent\_fu")).click();

Thread.sleep(2000);

Runtime.getRuntime().exec("D:\\TestData\\convert\_upload.exe");

}

}

**(AutoIT Application-----Desktop)**

**We need to write code for desktop operation in dis application in java nd dis files r with \_\_\_\_\_\_\_.au extension so convert it in to .exe files by (right click on .au file🡪 conver 64)**

**METHODS**

Runtime Class

.getRuntime()

.exec(“LOCATION”)

Runtime.getRuntime().exec("D:\\TestData\\convert\_upload.exe");

**ACTION Class**

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

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

**.build().perform();// to perform the action**

**Actions**

**ClickHoldAndMove**

ActionClassobj.clickAndHold() .moveByOffset(100, 100).release().build().perform();

**DragAndDrop**

ActionClassobj.dragAndDrop(source element, destination element) .build().perform();

**MouseOver**

ActionClassobj.moveToElement() .moveToElement() .click().build().perform();

**Handling Frames:** Frame are used to dived the browser window into multiple sections ,each section can load a separate html page

Frames are sections of web pages displayed on the top window

**Frames🡪FireBug🡪FirePath🡪 top window**

**| Frame0**

**| Frame1**

**Frame 2 Frame3\_\_\_\_\_\_\_\_**

When v open a browser window the control will focus on **top window**

**In frames we cant access the elements directly so, first we need to switch the control to the frame from the top window**

**Switch to Frame**

**1)Using Frame Index(0\_n-1) Top left -right Bottom**

**driver.switchTo().frame(int index);**

**2)Using Frame Name**

**driver.switchTo().frame(String frameName)//**if u knw the frame name give it **If not**

**driver.switchTo().frame(driver.findElement(By.className("demo-frame")));//**u can find name like this

**Switch to TOP WINDOW from FRAME**

**driver.switchTo().defaultContent();**

**Handle Edit/Text Box**

.sendKeys(“ ”);

.getText();

.clear();

.isEnabled();

isDisplayed();

**Handle Text Area/message**

.sendKeys(“ ”);

.getText();

.clear();

.isEnabled();

isDisplayed();

**Handle Button**

.click();

.getAttribute();

.isEnabled();// button will b enabled before u click it nd after click it will disabled

isDisplayed();

**Handle Image xpath[@id=” ”]/img xpath[@class=” ”]/img**

**Css[#id value]>img Css[.classvalue]>img**

**General Image**

isEnabled();

isDisabled();

**Image Button**

.click();

.getAttribute/.getText();

.isEnabled();

isDisplayed();

**Handling Radio Buttons Handling CheckBoxs**

.click();

.isSelected();

..isEnabled();

isDisplayed();