Selenium code:

package commands;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

public class Browsercommands {

public static void main(String[] args) {

// TODO Auto-generated method stub

WebDriver driver = new FirefoxDriver();

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

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

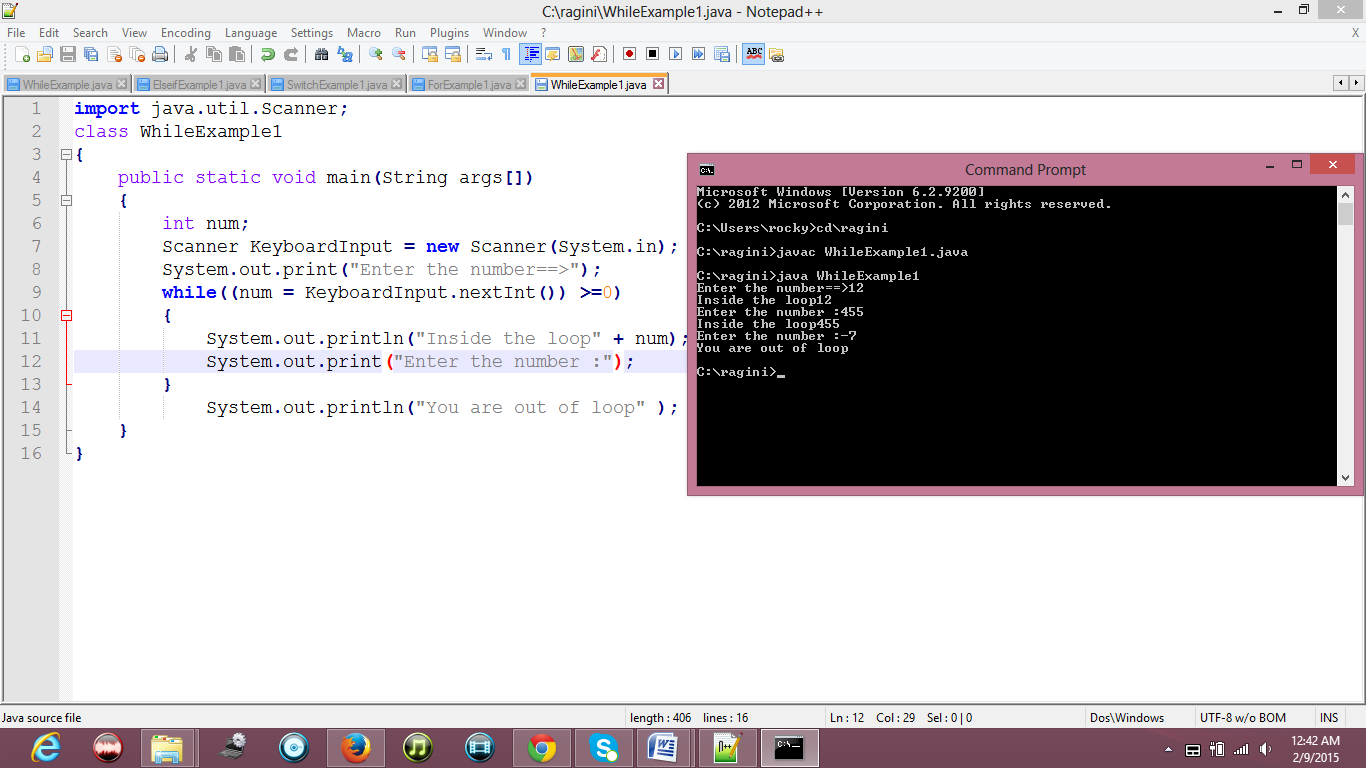
WebElement element = driver.findElement(By.xpath(".//\*[@id='hplogo']/a/img"));

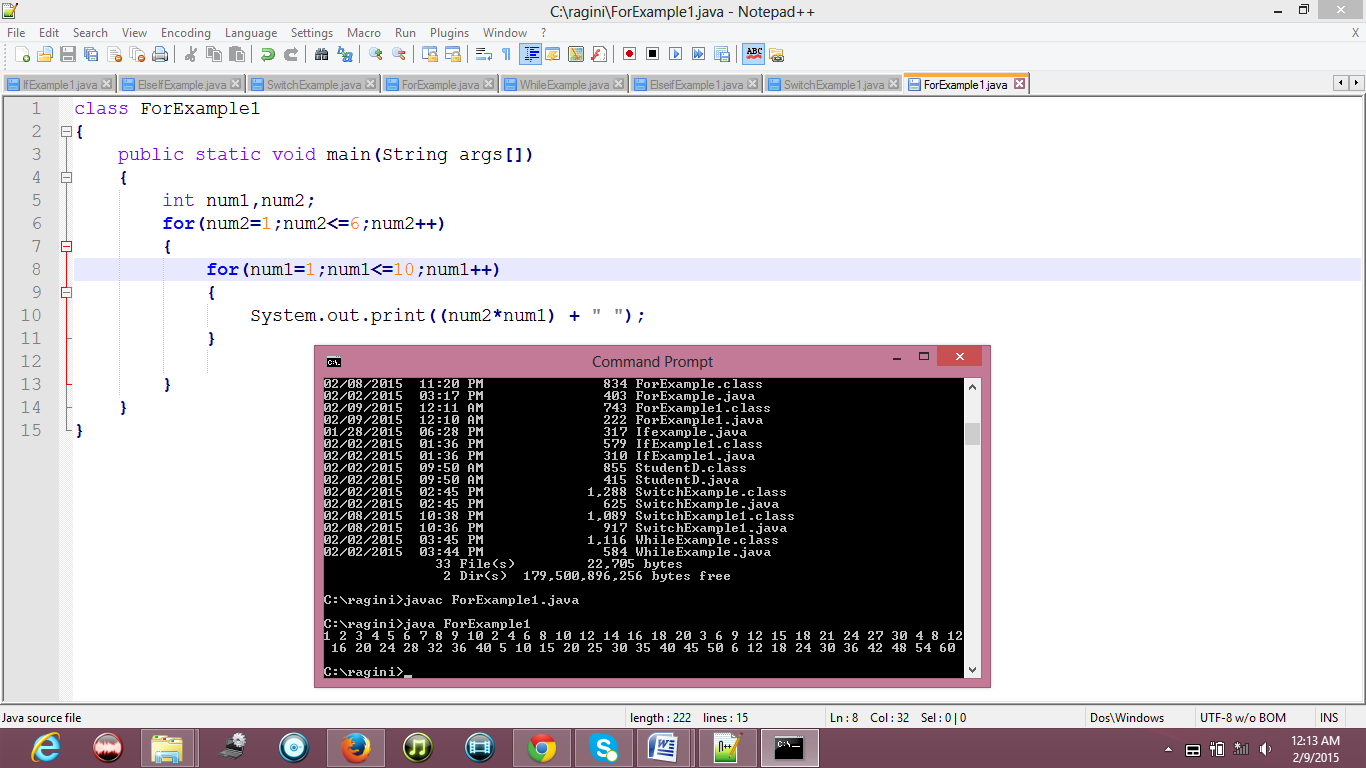
element.click();

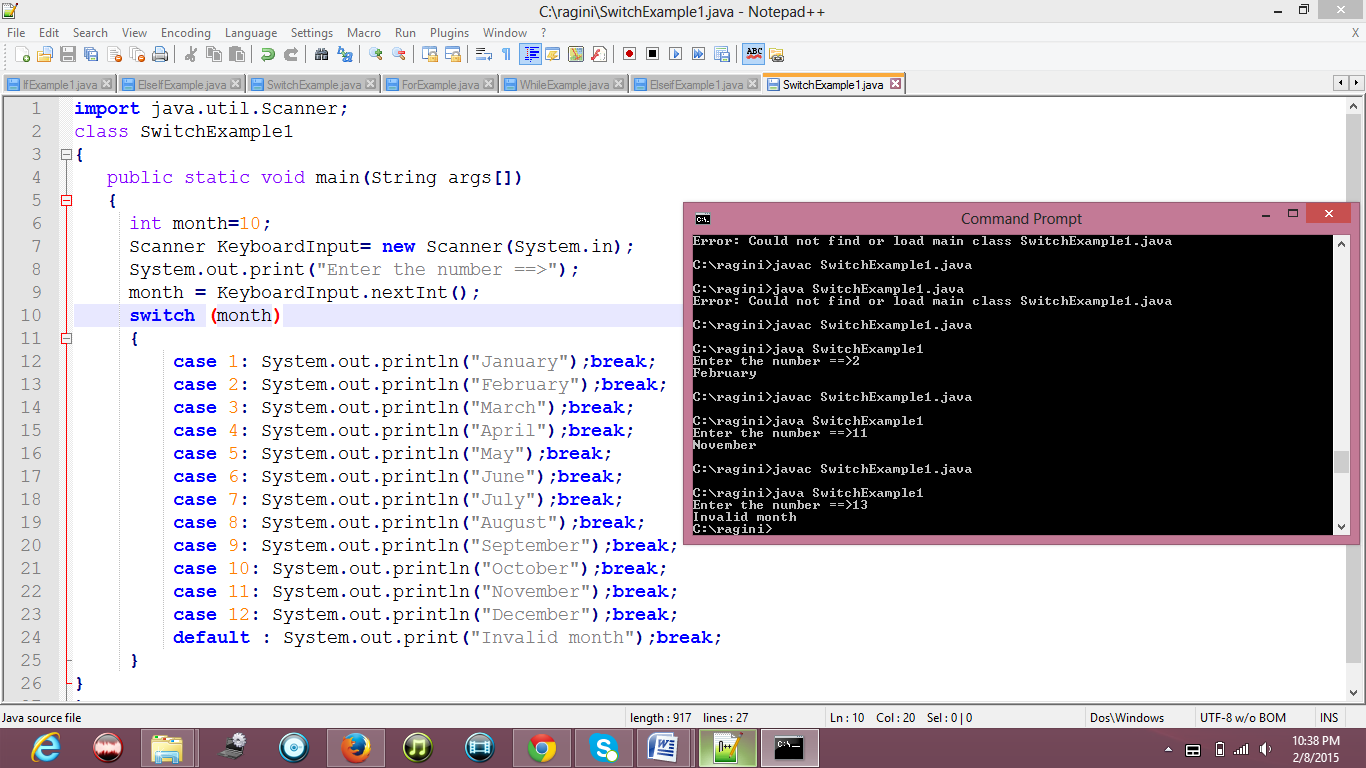
}

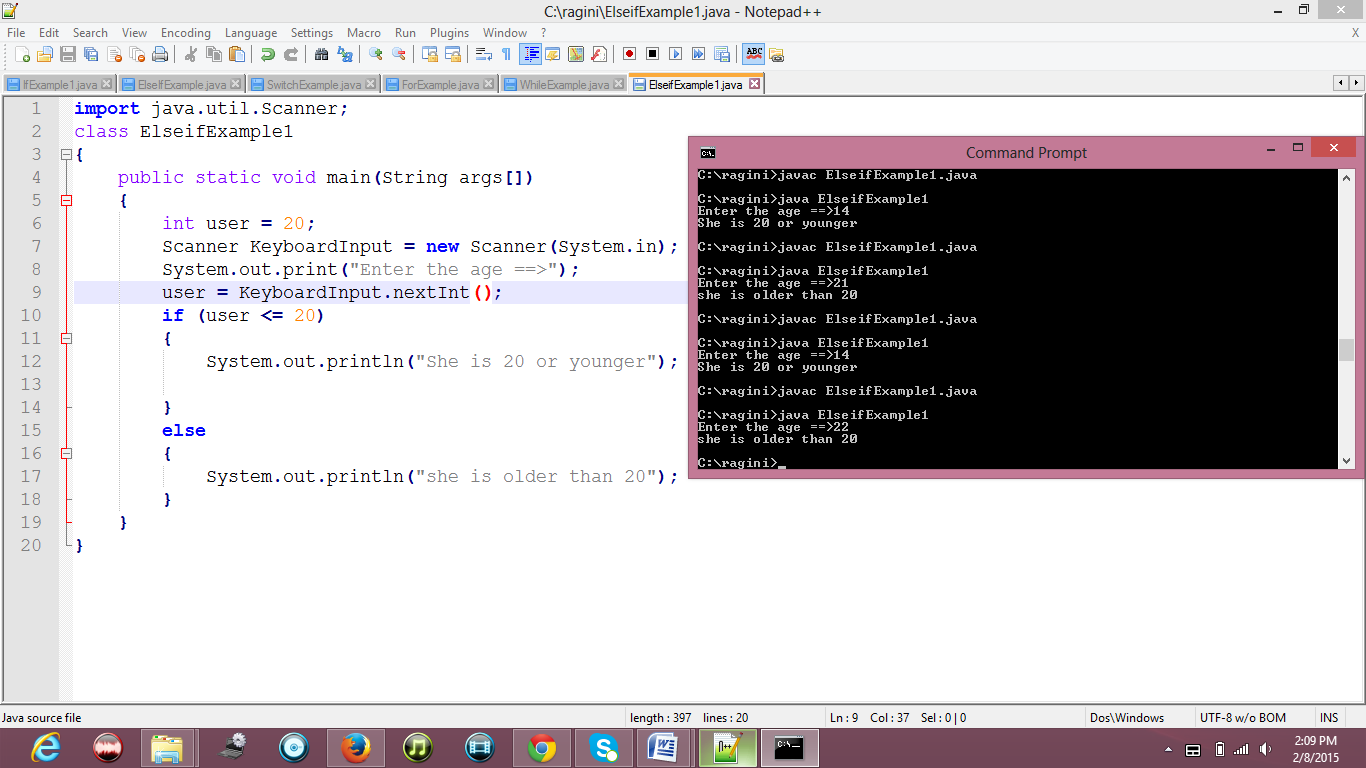
}

**Loops concepts:**









package commands;

import java.util.Set;

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.firefox.FirefoxDriver;

import org.openqa.selenium.remote.server.handler.GetCurrentUrl;

public class Dragdowns {

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

// TODO Auto-generated method stub

//System.setProperty("webdriver.chrome.driver", "C:\\chromedriver.exe");

WebDriver driver = new FirefoxDriver();

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

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

WebElement element = driver.findElement(By.xpath(".//\*[@id='gbw']/div/div/div[1]/div[1]/a"));

element.click();

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

String childWindow = (String)allWindows.toArray()[1];

driver.switchTo().window(childWindow);

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

driver.close();

}

}

package basics;

public class cons1 {

void m1()

{

System.out.println("akhila");

}

public static void main(String[] args)

{

cons1 c = new cons1();

c.m1();

}

}

package basics;

public class StaticMethod {

static class Student{

int rollno;

String name;

static String college = "FDU";

static void change(){

college = "JNTUH";

}

Student(int r, String n){

rollno = r;

name = n;

}

void display (){System.out.println(rollno+" "+name+" "+college);}

public static void main(String args[]){

Student.change();

Student s1 = new Student (001,"DHAN");

Student s2 = new Student (002,"FUNN");

Student s3 = new Student (003,"MANN");

s1.display();

s2.display();

s3.display();

}

}

}

Arrays, Static blocks concept

import java.util.Arrays;

public class ArrayEx

{

static int a[]={1,2,3,4,5};

static int b[]=new int[5];

public static void main(String[] args)

{

for(int i=0;i<4;i++)

{

b[i]=i+1;

}

for(int j=0;j<a.length;j++)

{

System.out.println("First array Elements:"+a[j]);

}

for(int k=0;k<b.length;k++)

{

System.out.println("Second array Elements:"+b[k]);

}

a[4]=5;

for(int j=0;j<a.length;j++)

{

System.out.println("After changing Elements of first array:"+a[j]);

}

Arrays.sort(a);

Arrays.sort(b);

for(int j=0;j<a.length;j++)

{

System.out.println("After sorting Elements of first array:"+a[j]);

}

for(int k=0;k<b.length;k++)

{

System.out.println("After sorting Elements of second array:"+b[k]);

}

}

}

package basics;

interface MyInterface

{

public void method1();

public void method2();

}

class XYZ implements MyInterface

{

public void method1()

{

System.out.println("implementation of method1");

}

public void method2()

{

System.out.println("implementation of method2");

}

public static void main(String arg[])

{

MyInterface obj = new XYZ();

obj. method1();

}

}

package browsercommands;

import java.util.List;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

public class Checkboxesandradiobuttons {

public static void main(String[] args) {

// TODO Auto-generated method stub

WebDriver driver = new FirefoxDriver();

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

driver.get("http://ironspider.ca/forms/checkradio.htm");

List<WebElement> checkboxes = driver.findElements(By.xpath(".//\*[@id='Content']/div[1]/blockquote[1]/form/input"));

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

String colour = checkboxes.get(i).getAttribute("value");

if(colour.equalsIgnoreCase("red")||colour.equalsIgnoreCase("yellow")||colour.equalsIgnoreCase("green")){

if(!(checkboxes.get(i).isSelected())){

checkboxes.get(i).click();

}

}

}

List<WebElement> radio = driver.findElements(By.xpath(".//\*[@id='Content']/div[1]/blockquote[2]/form"));

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

WebElement local\_radio=radio.get(i);

String value=local\_radio.getAttribute("value");

}

}

}

package browsercommands;

import java.io.File;

import java.io.IOException;

import org.apache.commons.io.FileUtils;

import org.openqa.selenium.OutputType;

import org.openqa.selenium.TakesScreenshot;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

public class Screenshots {

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

// TODO Auto-generated method stub

WebDriver driver=new FirefoxDriver();

driver.get("https://www.google.com/?gws\_rd=ssl");

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

FileUtils.copyFile(sourceFile, new File("C:\\Users\\Akhila.png"));

}

}

Drag and Drop in selenium WebDriver

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.interactions.Actions;

public class DemoDragDrop {

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

// Initiate browser

WebDriver driver=new FirefoxDriver();

// maximize browser

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

// Open webpage

driver.get("http://jqueryui.com/resources/demos/droppable/default.html");

Thread.sleep(5000);

// Create object of actions class

Actions act=new Actions(driver);

// find element which we need to drag

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

// find element which we need to drop

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

// this will drag element to destination

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

}

}

package browsercommands;

import java.util.List;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.support.ui.Select;

import frameworks.Loginobjects;

public class Dropdowns {

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

// TODO Auto-generated method stub

WebDriver driver=new FirefoxDriver();

driver.get("https://register.rediff.com/register/register.php?FormName=user\_details");

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

WebElement userNameTb = driver.findElement(Loginobjects.userNameTextbox);

userNameTb.sendKeys("Akhila Nampally");

WebElement rediffMailRm=driver.findElement(Loginobjects.rediffMailId);

rediffMailRm.sendKeys("akhila\_nampally11");

if(driver.getPageSource().contains("Yippie! The ID you've chosen is available"))

{

System.out.println("pass");

}

else

{

System.out.println("fail");

}

driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[7]/td[3]/input[2]")).click();

WebElement passWordPd= driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[9]/td[3]/input"));

passWordPd.sendKeys("Arundhathi@3");

WebElement retypePasswordRp=driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[11]/td[3]/input"));

retypePasswordRp.sendKeys("Arundhathi@3");

WebElement alternateEmailAe=driver.findElement(By.xpath(".//\*[@id='div\_altemail']/table/tbody/tr[1]/td[3]/input"));

alternateEmailAe.sendKeys("akhila.nampally11@gmail.com");

if(!driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[14]/td[2]/table/tbody/tr/td[1]/input")).isSelected())

{

driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[14]/td[2]/table/tbody/tr/td[1]/input")).click();

}

WebElement securityQuestionSq=driver.findElement(By.xpath(".//\*[@id='div\_hintQS']/table/tbody/tr[2]/td[3]/select"));

Select securityQuestion=new Select(securityQuestionSq);

securityQuestion.selectByIndex(1);

WebElement enterAnswerEa=driver.findElement(By.xpath(".//\*[@id='div\_hintQS']/table/tbody/tr[4]/td[3]/input"));

enterAnswerEa.sendKeys("DPS");

WebElement maidenNameMn=driver.findElement(By.xpath(".//\*[@id='div\_hintQS']/table/tbody/tr[6]/td[3]/input"));

maidenNameMn.sendKeys("xxx");

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

mobileNoMn.sendKeys("0000000000");

driver.findElement(By.xpath(".//\*[@id='inpSendVeryCode']")).click();

List<WebElement> genderG=driver.findElements(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[25]/td[3]"));

WebElement dayD=driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[23]/td[3]/select[1]"));

Select day=new Select(dayD);

day.selectByIndex(10);

WebElement monthDd = driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[23]/td[3]/select[2]")) ;

Select month = new Select(monthDd);

//month.selectByIndex(7);

month.selectByValue("04");

WebElement yearY=driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[23]/td[3]/select[3]"));

Select year=new Select(yearY);

year.selectByIndex(3);

List<WebElement> options = month.getOptions();

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

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

}

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

Select country=new Select(countryC);

country.selectByVisibleText("India");

WebElement cityCi=driver.findElement(By.xpath(".//\*[@id='div\_city']/table/tbody/tr[1]/td[3]/select"));

Select city=new Select(cityCi);

city.selectByVisibleText("Hyderabad");

WebElement enterText=driver.findElement(By.xpath(".//\*[@id='wrapper']/table[2]/tbody/tr[33]/td[3]/input"));

enterText.sendKeys("YYY");

driver.findElement(By.xpath(".//\*[@id='Register']")).click();

org.openqa.selenium.Alert myAlert=driver.switchTo().alert();

Thread.sleep(3000);

myAlert.accept();

}

}

package basics;

public class Overriding {

class Bank{

int getRateOfInterest(){return 0;}

}

class SBI extends Bank{

int getRateOfInterest(){return 8;}

}

class ICICI extends Bank{

int getRateOfInterest(){return 7;}

}

class AXIS extends Bank{

int getRateOfInterest(){return 9;}

}

class Test2{

public void main(String args[]){

SBI s=new SBI();

ICICI i=new ICICI();

AXIS a=new AXIS();

System.out.println("SBI Rate of Interest: "+s.getRateOfInterest());

System.out.println("ICICI Rate of Interest: "+i.getRateOfInterest());

System.out.println("AXIS Rate of Interest: "+a.getRateOfInterest());

}

}

}

package basics;

class MultilevelInheritance

{

public void methodMultilevelInheritance()

{

System.out.println("Class XMultilevelInheritance method");

}

public static class Y extends MultilevelInheritance

{

public void methodY()

{

System.out.println("class Y method");

}

public static class Z extends Y

{

public void methodZ()

{

System.out.println("class Z method");

}

public static void main(String args[])

{

Z obj = new Z();

obj.methodMultilevelInheritance(); //calling grand parent class method

obj.methodY(); //calling parent class method

obj.methodZ(); //calling local method

}

}

}

}

package basics;

class Inheritance {

int z;

public void addition(int x, int y) {

z = x + y;

System.out.println("The sum of the given numbers:"+z);

}

public void Subtraction(int x, int y) {

z = x - y;

System.out.println("The difference between the given numbers:"+z);

}

}

class Akhila extends Inheritance {

public void multiplication(int x, int y) {

z = x \* y;

System.out.println("The product of the given numbers:"+z);

}

public static void main(String args[]) {

int a = 20, b = 10;

Akhila demo = new Akhila();

demo.addition(a, b);

demo.Subtraction(a, b);

demo.multiplication(a, b);

}

}

package basics;

abstract class Bike{

//abstract class

Bike(){System.out.println("bike is created");}

abstract void run();

//abstract method

void changeGear(){System.out.println("gear changed");}

}

class Honda extends Bike{

void run(){System.out.println("running safely..");}

}

class TestAbstraction2{

public static void main(String args[]){

Bike obj = new Honda();

obj.run();

obj.changeGear();

}

}

Manual Test Cases:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test Case Description | Step Name | Test Data | Step Description | Expected Result | Actual Result |  |
| This test case validates the withdrawal by the user with valid inputs | Step 1 | Insert Card | Insert the card in the ATM machine | Insert the card and the system should respond with a text box to enter the card number and password and a “Signin/Submit” | System displayed the fields card number and password and “Signin/Submit” |  |
|  | Step 2 | Card Number | Enter the Card number and click on” Signin/Submit” | System should display the savings and current buttons | System display the savings and current button |  |
|  | Step 3 |  | Click on savings | System should respond with “withdrawal”, “deposit”, ”fund transfer” and “balance buttons” | System responded with “withdrawal”, “deposit”, ”fund transfer” and “balance buttons” |  |
|  | Step 4 |  | Click on “withdrawal” | System should respond with a text box to enter amount along with “Submit”/ “YES” AND “NO”/ “CANCEL” buttons | System responded with a text box to enter amount along with “Submit”/ “YES” AND “NO”/ “CANCEL” buttons |  |
|  | Step 5 |  |  | System should respond with processing details and after processing should dispense the amount and display “want to continue with another transaction” along with “YES” and “No” button | System Behaved as expected |  |
|  | Step 6 |  | Click on ”NO” | System should display “want to continue” or “END” transaction | System Behaved as expected |  |

What is desired capability

The desired capability is a series of key/value pairs that stores the browser properties like browsername, browser version, the path of the browser driver in the system, etc. to determine the behaviour of the browser at run time.

* Desired capability can also be used to configure the driver instance of Selenium WebDriver.
* We can configure driver instance like FirefoxDriver, ChromeDriver, InternetExplorerDriver by using desired capabilities.

Desired Capabilities are more useful in cases like:

* In mobile application automation, where the browser properties and the device properties can be set.
* In Selenium grid when we want to run the test cases on a different browser with different operating systems and versions.

Most common Exceptions

1) NoSuchElementException : FindBy method can’t find the element.

2) StaleElementReferenceException : This tells that element is no longer appearing on the DOM page.

3) TimeoutException: This tells that the execution is failed because the command did not complete in enough time.

4) ElementNotVisibleException: Thrown to indicate that although an element is present on the DOM, it is not visible, and so is not able to be interacted with

5) ElementNotSelectableException: Thrown to indicate that may be the element is disabled, and so is not able to select.

how to handle Ajax calls in selenium?

The loading of the web page will last only for a fraction of seconds, it is difficult for the tester to test such application through automation tool. For that, Selenium Webdriver has to use the wait method on this Ajax Call.

So by executing this wait command, selenium will suspend the execution of current test case and wait for the expected or new value. When the new value or field appears, the suspended test cases will get executed by Selenium Webdriver.

What is Database

Collection of objects, data is organized in a form of rows and columns

What is Table

Set of data elements arranged in a form of rows(records) and columns(fields)

What is Column

Set of data of a similar type arranged in vertical order.

What is row

A row is a data record within a table. Each row, which represents a complete record of specific

item data, holds different data within the same structure.

Example for Inner Join

|  |  |  |
| --- | --- | --- |
| ID | Name | DepartmentID |
| 1 | Shawn | 1 |
| 2 | Ben | 2 |
| 3 | Henry | 3 |
| 4 | Ragi | Null |

|  |  |
| --- | --- |
| DepartmentID | DepartmentName |
| 1 | IT |
| 2 | Bio |
| 3 | Admin |
| 4 | Commericial |

Select Name, DepartmentName

From Employee

Inner Join Department

Where Employee.DepartmentID= Department.DepartmentID

Result

|  |  |
| --- | --- |
| Name | DepartmentName |
| Shawnn | IT |
| Ben | Bio |
| Henry | Admin |
|  |  |

Example for Left Outer Join

|  |  |  |
| --- | --- | --- |
| ID | Name | DepartmentID |
| 1 | Shawn | 1 |
| 2 | Ben | 2 |
| 3 | Henry | 3 |
| 4 | Ragi | Null |

|  |  |
| --- | --- |
| DepartmentID | DepartmentName |
| 1 | IT |
| 2 | Bio |
| 3 | Admin |
| 4 | Commericial |

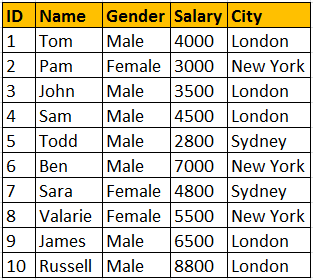
Select Name, DepartmentName

From Employee

Left Outer Join Department

Where Employee.DepartmentID= Department.DepartmentID

GroupBy



**Select City, SUM(Salary) as TotalSalary**  
**from tblEmployee**  
**Group By City**

Output

|  |  |
| --- | --- |
| City | TotalSalary |
| London | 27300 |
| NewYork | 15000 |
| Sydney | 76000 |