**PROGRAM 1**

**import** java.util.Scanner;

**public** **class** Triangleclass1 {

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

{

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter the integer for the First side");

**int** a = sc.nextInt();

System.***out***.println("Enter the integer for the Second side");

**int** b = sc.nextInt();

System.***out***.println("Enter the integer for the Third side");

**int** c = sc.nextInt();

Triangleclass1 obj=**new** Triangleclass1();

obj.ftriangle(a,b,c);

}

**public** String ftriangle(**int** a,**int** b,**int** c)

{

**boolean** c1,c2,c3;

**char** istriangle;

**do**

{

System.***out***.println(a+b+c);

c1 = (a>=1) && (a<=10);

c2= (b>=1)&& (b<=10);

c3= c>=1 && c<=10;

**if** (!c1)

System.***out***.println("The value of a="+a+" is not the range of permitted value");

**if** (!c2)

System.***out***.println("The value of b="+b+" is not the range of permitted value");

**if** (!c3)

System.***out***.println("The value of c="+c+" is not the range of permitted value");

c3 = **true**;

} **while**(!c1 && !c2 && !c3);

**if**( a<b+c && b<a+c && c<a+b )

istriangle='y';

**else**

istriangle ='n';

**if** (istriangle=='y')

{

**if** ((a==b) && (b==c))

{

System.***out***.println("\nEquilateral triangle\n");

**return**("equilateral");

}

**else** **if** ((a!=b) && (a!=c) && (b!=c))

{

System.***out***.println("\nScalene triangle\n");

**return**("scalene");

}

**else**

{

System.***out***.println("\nIsosceles triangle\n");

**return**("isosceles");

}}

**else** {

System.***out***.println("\nNot a triangle\n");

}

**return**("not triangle");

}}

**JUNIT**

**import** **static** org.junit.Assert.\*;

**import** org.junit.Test;

**public** **class** triangletest {

@Test

**public** **void** test1()

{

Triangleclass1 c=**new** Triangleclass1();

String expectedvalue="scalene";

String actualvalue=c.ftriangle(3,4,5);

*assertEquals*(expectedvalue,actualvalue);

}

@Test

**public** **void** test2()

{

Triangleclass1 c=**new** Triangleclass1();

String expectedvalue="equilateral";

String actualvalue=c.ftriangle(1,1,1);

*assertEquals*(expectedvalue,actualvalue);

}

@Test

**public** **void** test3()

{

Triangleclass1 c=**new** Triangleclass1();

String expectedvalue="isosceles";

String actualvalue=c.ftriangle(5,5,1);

*assertEquals*(expectedvalue,actualvalue);

}}

**PROGRAM 2**

**import** java.util.Scanner;

**public** **class** Commi {

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

{

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter locks value");

**int** locks = sc.nextInt();

System.***out***.println("Enter stocks value");

**int** stocks = sc.nextInt();

System.***out***.println("Enter barrels value");

**int** barrels = sc.nextInt();

Commi c=**new** Commi();

c.commis(locks,stocks,barrels);

}

**public** **int** commis(**int** locks,**int** stocks,**int** barrels)

{

**int** tlocks,tstocks,tbarrels;

**boolean** c1,c2,c3;

**int** temp;

**double** lprice, sprice,bprice,sales,comm;

lprice=45;

tlocks=0;

sprice=30;

tstocks=0;

bprice=25;

tbarrels=0;

c1=(locks<1 || locks>70);

c2=(stocks<1 || stocks>80);

c3=(barrels<1 || barrels>90);

**if**(c1)

{

System.***out***.println("Value of locks not in range");

}

**else**

{

temp=tlocks+locks;

**if**(temp>70)

{

System.***out***.println("New locks value="+temp+" not in range 1-70");

}

**else**

tlocks=temp;

}

System.***out***.println("Total locks="+tlocks);

**if**(c2)

{

System.***out***.println("Value of stocks not in range");

}

**else**

{

temp=tstocks+stocks;

**if**(temp>80)

{

System.***out***.println("New stocks value="+temp+" not in range 1-80");

}

**else**

tstocks=temp;

}

System.***out***.println("Total stocks="+tstocks);

**if**(c3)

{

System.***out***.println("Value of barrels not in range");

}

**else**

{

temp=tbarrels+barrels;

**if**(temp>90)

{

System.***out***.println("New barrels value="+temp+" not in range 1-90");

}

**else**

tbarrels=temp;

}

System.***out***.println("Total barrels="+tbarrels);

sales=lprice\*tlocks+sprice\*tstocks+bprice\*tbarrels;

System.***out***.println("Total sales="+sales);

**if**(sales>0)

{

**if**(sales>1800.0)

{

comm=0.10\*1000;

comm=comm+0.15\*800;

comm=comm+0.20\*(sales-1800);

}

**else** **if**(sales>1000)

{

comm=0.10\*1000;

comm=comm+0.15\*(sales-1000);

}

**else**

{

comm=0.10\*sales;

}

System.***out***.println("commission amount is "+comm);

**return** (**int**) comm;

}

**else**

System.***out***.println("No sales");

**return** (**int**)sales;

}

}

**JUNIT**

**import** **static** org.junit.Assert.\*;

**import** org.junit.Test;

**public** **class** commitest {

@Test

**public** **void** test2()

{

Commi c=**new** Commi();

**int** expected=0;

**int** actual=c.commis(0, 0, 0);

*assertEquals*(expected,actual);

}

@Test

**public** **void** test1()

{

Commi c=**new** Commi();

**float** expected=(**float**) 97.5;

**float** actual=c.commis(10, 10, 9);

*assertEquals*(expected,actual,2);

}

}

**PROGRAM 3**

**package** nextdatepgm;

**import** java.util.Scanner;

**public** **class** nextdatepgm

{

**public** **static** **boolean** check(**int** day,**int** month)

{

**if**((month==4||month==6||month==9 ||month==11) && day==31)

**return** **true**;

**else**

**return** **false**;

}

**public** **static** **boolean** isleap(**int** year)

{

**if**((year%4==0 && year%100!=0) || year%400==0)

**return** **true**;

**else**

**return** **false**;

}

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

{

**int** day,month,year,tomm\_day = 0,tomm\_month,tomm\_year;

**char** flag;

**do**

{

flag='y';

System.***out***.println("Enter the today's date in the form of dd mm yyyy");

Scanner in=**new** Scanner(System.***in***);

day=in.nextInt();

month=in.nextInt();

year=in.nextInt();

in.close();

tomm\_month=month;

tomm\_year= year;

**if**((day<1 || day>31) && (month<1 || month>12) && (year<1812 || year>2018))

{

System.***out***.println("value of day, not in the range 1...31");

System.***out***.println("value of month, not in the range 1....12");

System.***out***.println("value of year, not in the range 1812.......2018");

flag='n';

**break**;

}

**if**((day<1 || day>31) && (month<1 || month>12))

{

System.***out***.println("value of day, not in the range 1...31");

System.***out***.println("value of month, not in the range 1....12");

flag='n';

**break**;

}

**if**((day<1 || day>31) && (year<1812 || year>2018))

{

System.***out***.println("value of day, not in the range 1...31");

System.***out***.println("value of year, not in the range 1812.......2018");

flag='n';

**break**;

}

**if**((month<1 || month>12) && (year<1812 || year>2018))

{

System.***out***.println("value of month, not in the range 1....12");

System.***out***.println("value of year, not in the range 1812.......2018");

flag='n';

**break**;

}

**if**(day<1 || day>31)

{

System.***out***.println("value of day, not in the range 1...31");

flag='n';

**break**;

}

**if**(month<1 || month>12)

{

System.***out***.println("value of month, not in the range 1....12");

flag='n';

**break**;

}

**else** **if**(*check*(day,month))

{

System.***out***.println("value of day, not in the range day<=30");

flag='n';

**break**;

}

**if**(year<1812 || year>2018)

{

System.***out***.println("value of year, not in the range 1812....... 2018");

flag='n';

**break**;

}

**if**(month==2)

{

**if**(*isleap*(year) && day>29)

{

System.***out***.println("invalid date input for leap year");

flag='n';

**break**;

}

**else** **if**(!(*isleap*(year))&& day>28)

{

System.***out***.println("invalid date input for not a leap year");

flag='n';

**break**;

}

}

}**while**(flag=='n');

**switch** (month)

{

**case** 1:

**case** 3:

**case** 5:

**case** 7:

**case** 8:

**case** 10:**if**(day<31)

tomm\_day=day+1;

**else**

{

tomm\_day=1;

tomm\_month=month+1;

}

**break**;

**case** 4:

**case** 6:

**case** 9:

**case** 11: **if**(day<30)

tomm\_day=day+1;

**else**

{

tomm\_day=1;

tomm\_month=month+1;

}

**break**;

**case** 12: **if**(day<31)

tomm\_day=day+1;

**else**

{

tomm\_day=1;

tomm\_month=1;

**if**(year==2018)

{

System.***out***.println("the next day is out of boundary value of year\n");

tomm\_year=year+1;

}

**else**

tomm\_year=year+1;

}

**break**;

**case** 2:

**if**(day<28)

tomm\_day=day+1;

**else** **if**(*isleap*(year)&& day==28)

tomm\_day=day+1;

**else** **if**(day==28 || day==29)

{

tomm\_day=1;

tomm\_month=3;

}

**break**;

}

**if**(flag=='y')

System.***out***.println("Next date is:"+tomm\_day+" "+tomm\_month+" "+tomm\_year+" ");

}

}

**JUNIT**

**package** nextdatepgm;

**import** **static** org.junit.Assert.\*;

**import** org.junit.Test;

**public** **class** nextdatetest {

@Test

**public** **void** test() {

nextdatepgm n=**new** nextdatepgm();

n.*main*(**null**);

}}

**PROGRAM 4**

**import** java.util.Scanner;

**public** **class** Matrix\_Mult {

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

{

**int** m,n,m1,n1;

Scanner input = **new** Scanner(System.***in***);

System.***out***.println("Enter the order of matrix A");

m = input.nextInt();

n = input.nextInt();

System.***out***.println("Enter the order of matrix B");

m1 = input.nextInt();

n1= input.nextInt();

**if**(n==m1)

{

**int**[][] a = **new** **int**[m][n];

**int**[][] b = **new** **int**[m1][n1];

**int**[][] c = **new** **int**[m][n1];

System.***out***.println("Enter the elements of 1st martix row wise \n");

**for** (**int** i = 0; i < m; i++)

{

**for** (**int** j = 0; j < n; j++)

{

a[i][j] = input.nextInt();

}

}

System.***out***.println("Enter the elements of 2nd martix row wise \n");

**for** (**int** i = 0; i < m1; i++)

{

**for** (**int** j = 0; j < n1; j++)

{

b[i][j] = input.nextInt();

}

}

System.***out***.println("Multiplying the matrices...");

**for** (**int** i = 0; i < m; i++)

{

**for** (**int** j = 0; j < n1; j++)

{

c[i][j]=0;

**for** (**int** k = 0; k < n; k++)

{

c[i][j] = c[i][j] + a[i][k] \* b[k][j];

}

}

}

System.***out***.println("The product is:");

**for** (**int** i = 0; i < m; i++)

{

**for** (**int** j = 0; j < n1; j++)

{

System.***out***.print(c[i][j] + " ");

}

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

}

input.close();

}

**else**

System.***out***.println("matrix multiplication not possile");

}}

**JUNIT**

**import** **static** org.junit.Assert.\*;

**import** org.junit.Test;

**public** **class** matrixtest {

@Test

**public** **void** test() {

Matrix\_Mult n=**new** Matrix\_Mult();

n.*main*(**null**);

}}

**PROGRAM 8**

**package** selenium;

**import** **static** org.junit.Assert.\*;

**import** java.util.\*;

**import** java.util.concurrent.TimeUnit;

**import** org.openqa.selenium.\*;

**import** org.openqa.selenium.chrome.ChromeDriver;

**import** org.openqa.selenium.support.ui.ExpectedConditions;

**import** org.openqa.selenium.support.ui.WebDriverWait;

**public** **class** seleniumsample

{

**static** WebDriver *driver*;

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

// **TODO** Auto-generated method stub

seleniumsample c=**new** seleniumsample();

*driver*=c.Launch("http://www.yahoo.com");

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

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

objTextBox.sendKeys("Software Testing");

objTextBox.submit();

System.***out***.println("waiting");

WebDriverWait wait=**new** WebDriverWait(*driver*,10);

System.***out***.println("waiting over");

wait.until(ExpectedConditions.*titleContains*("Software Testing"));

System.***out***.println("check");

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

System.***out***.println("all test case pass");

*assertEquals*("Software Testing - Yahoo India Search Results",*driver*.getTitle());

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

c.Close();

}

**public** seleniumsample()

{

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

*driver*=**new** ChromeDriver();

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

System.***out***.println("Launching Chrome");

}

**public** WebDriver Launch(String url){

*driver*.get(url);

System.***out***.println("Opened URL in Chrome:"+url);

**return** *driver*;

}

**public** **void** Close()

{

*driver*.quit();

System.***out***.println("Closed Chrome");

}

}

**PROGRAM 9**

**package** selenium;

**import** **static** org.junit.Assert.\*;

**import** java.util.\*;

**import** java.util.concurrent.TimeUnit;

**import** org.openqa.selenium.\*;

**import** org.openqa.selenium.chrome.ChromeDriver;

**import** org.openqa.selenium.support.ui.WebDriverWait;

**public** **class** selenium2

{

**static** WebDriver *driver*;

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

// **TODO** Auto-generated method stub

selenium2 c=**new** selenium2();

*driver*=c.Launch("https://github.com/login");

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

WebElement obt1=*driver*.findElement(By.*name*("login"));

obt1.sendKeys("autotest");

WebElement obt2=*driver*.findElement(By.*name*("password"));

obt2.sendKeys("autotest");

WebElement ob=*driver*.findElement(By.*name*("commit"));

ob.submit();

WebDriverWait wait=**new** WebDriverWait(*driver*,10);

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

System.***out***.println("all test case pass");

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

c.Close();

}

**public** selenium2()

{

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

*driver*=**new** ChromeDriver();

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

System.***out***.println("Launching Chrome");

}

**public** WebDriver Launch(String url){

*driver*.get(url);

System.***out***.println("Opened URL in Chrome:"+url);

**return** *driver*;

}

**public** **void** Close()

{

*driver*.quit();

System.***out***.println("Closed Chrome");

}

}

**PROGRAM 11**

**package** selenium;

//import static org.junit.Assert.\*;

//import java.util.\*;

**import** java.util.concurrent.TimeUnit;

**import** org.openqa.selenium.\*;

**import** org.openqa.selenium.chrome.ChromeDriver;

//import org.openqa.selenium.support.ui.ExpectedConditions;

**import** org.openqa.selenium.support.ui.WebDriverWait;

**public** **class** selenium4

{

**static** WebDriver *driver*;

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

// **TODO** Auto-generated method stub

selenium4 IDriver=**new** selenium4();

WebDriver driver = IDriver.Launch("http://www.google.com");

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

WebDriverWait wait = **new** WebDriverWait(driver, 100);

**int** linkCount = driver.findElements(By.*xpath*("//a")).size();

System.***out***.println("Count of links: "+linkCount);

**int** imageCount = driver.findElements(By.*xpath*("//img")).size();

System.***out***.println("Count of Images: "+imageCount);

**int** buttonCount = driver.findElements(By.*xpath*("//input[@type['submit']]")).size();

System.***out***.println("Count of buttons: "+buttonCount);

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

IDriver.Close();

}

**public** selenium4()

{

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

*driver*=**new** ChromeDriver();

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

System.***out***.println("Launching Chrome");

}

**public** WebDriver Launch(String url){

*driver*.get(url);

System.***out***.println("Opened URL in Chrome:"+url);

**return** *driver*;

}

**public** **void** Close()

{

*driver*.quit();

System.***out***.println("Closed Chrome");

}

}

**PROGRAM 5**

**Sta.html**

<html>

<head>

<title> LAB 5 </title>

</head>

<body>

<center>

<h2> ENTER THE STUDENT DETAILS </h2>

<form action = "http://localhost:8080/lab5.php" method = "post" onsubmit = "return validate()">

NAME : <input type = "text" name = "name" required pattern = "[A-Za-z]\*"><br><br>

USN : <input type = "text" name = "usn" maxlength = "10" required pattern = "([1-4][A-Z]{2}[0-9]{2}[A-Z]{2}(?!0{3})[0-9]{3})"> <br> <br>

AGE : <input type = "text" name = "age" required pattern = "[0-9]{2}"> <br> <br>

<input type = "submit" value = "INSERT RECORD"/>

<input type = "reset" value = "CLEAR"/>

</form>

</center>

</body>

</html>

**Lab5.php**

<html>

<head>

<title> Database </title>

</head>

<body>

<?php

$name=$\_POST['name'];

$usn = $\_POST['usn'];

$age=$\_POST['age'];

$con=mysqli\_connect("localhost","root","");

if(!($con))

{

die("error in connecting to DB");

}

else

{

print "<i style='color:green'>connection successfull</i><br />";

}

$db=mysqli\_select\_db($con,"test");

$query="insert into studentdetails values('$name','$usn',$age)";

mysqli\_query($con,$query);

$result=mysqli\_query($con,"select \* from studentdetails");

$rows=mysqli\_num\_rows ( $result );

echo "<i style='color:blue'>num of rows inserted into the Student detail table are $rows</i>";

echo "<table border='1'><tr><th>Name</th><th>USN</th><th>Age</th></tr>";

for($row=1;$row<=$rows;$row++)

{

$rowv=mysqli\_fetch\_array($result,MYSQLI\_ASSOC);

echo "<tr><td>".$rowv['name']."</td>";

echo "<td>".$rowv['usn']."</td>";

echo "<td>".$rowv['age']."</td></tr>";

}

echo "</table>";

mysqli\_close($con);

?>

<h4>Enter user name to be searched</h4>

<form action="http://localhost:8080/search.php" method="post">

Enter name to be searched:<input type="text" name="name"/>

<input type="submit" value="Search"/>

<input type="reset" value="reset"/>

</form>

</body>

</html>

**Search.php**

<html>

<head>

</head>

<body>

<?php

$name=$\_POST['name'];

$con=mysqli\_connect("localhost","root","");

if(!($con))

{

die("error in connecting to DB");

}

else

{

print "<i style='color:green'>connection successfull</i><br />";

}

$db=mysqli\_select\_db($con,"test");

$result=mysqli\_query($con,"select \* from studentdetails where name='$name'");

$rows=mysqli\_num\_rows($result);

if($rows==0)

{

echo "<i style='color:red;'>There are no rows with the name as $name<i>";

}

else

{

echo "<i style='color:blue'>num of rows in the user\_detail table with user name as $name are $rows</i><br />";

echo "<table border='1'><tr><th>Name</th><th>USN</th><th>Age</th></tr>";

for($row=1;$row<=$rows;$row++)

{

$rowv=mysqli\_fetch\_array($result,MYSQLI\_ASSOC);

echo "<tr><td>".$rowv['name']."</td>";

echo "<td>".$rowv['usn']."</td>";

echo "<td>".$rowv['age']."</td></tr>";

}

echo "</table>";

}

mysqli\_close($con);

?>

</form>

</body>

</html>