**Date:-** 09/10/2020

**Practical no 5**

**AIM:** Write and test a program to select the number of students who have scored more than 60 in any one subject

**Theory**

**What is testNG**

TestNG is a testing framework for the Java programming language created by C´edric

Beust and inspired by JUnit and NUnit. The design goal of TestNG is to cover a wider

range of test categories: unit, functional, end-to-end, integration, etc., with more powerful

and easy-to-use functionalities.

**Annotations in TestNG**

**@BeforeSuite:** The annotated method will be run before all tests in this suite have run.

**@AfterSuite**: The annotated method will be run after all tests in this suite have run.

**@BeforeTest**: The annotated method will be run before any test method belonging to

the classes inside the ¡test¿ tag is run.

**@AfterTest**: The annotated method will be run after all the test methods belonging to

the classes inside the ¡test¿ tag have run.

**@Test**: Marks a class or a method as part of the test.

**Jxl Library Functions :**

**Workbook :** Represents a Workbook. Contains the various factory methods and provides a variety of accessors which provide access to the work sheets.

**WritableWorkbook** : A writable workbook.

**Sheet :** Represents a sheet within a workbook. Provides a handle to the individual cells,

or lines of cells (grouped by Row or Column).

**WriteableSheet :** Interface for a worksheet that may be modified. The most important

modification for a sheet is to have cells added to it

**Label :** A cell containing text which may be created by user applications.

**Steps to install TestNG**

Step-1 :- Create a new Project and give it a name.

Step-2 :- After the initialization create a new package inside the project and give it a

name.

Step-3 :- To include the libraries and ”jar” files, Unzip the zipped archives,next ”right

click on the project icon → BuildP ath → Conf igureBuildP ath..”

Step-4 :- Here we will choose ”Add External JARs...” button and navigate to the ”.jar”

file we downloaded/extracted and select them to include in our project.

Step-5 :- To add TestNG to eclipse navigate to help → InstallNewSof tware...

Step-6 :- Next add the TestNG URL

http://dl.bintray.com/testng-team/testng-eclipse-release/ and

save it as a new source in eclipse.

Step-7 :- Wait for the software repository to fetch all the package data.

Step-8 :- Select TestNG package and all of its sub-packages /dependencies.

Step-9 :- Let the package manager calculate and download the dependencies and requirements.

Step-10 :- Accept the License agreement and finish the installation.

Step-11 :- Next to add a TestNG window to eclipse click on window → showview →

java → T estNG.

Step-12 :- Right click on the project and add a new TestNG class to the project with a

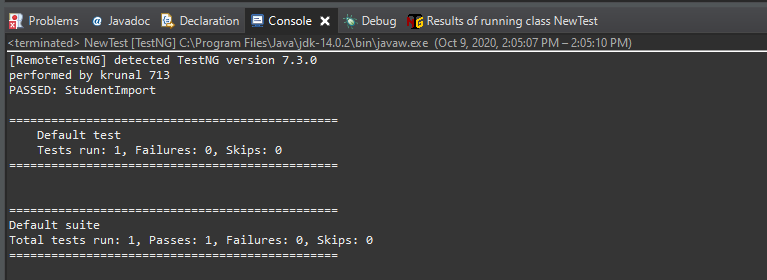
suitable name.

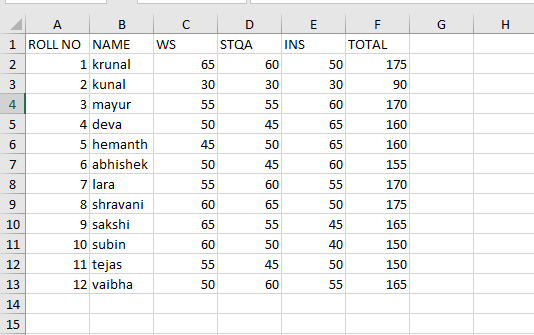
Step-13 :- Add the TestNG Library to your project as well.

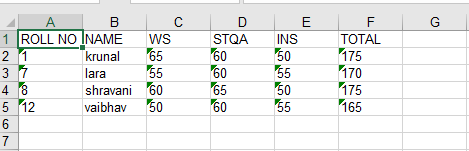
**Code**

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| --- |
| import java.io.FileInputStream;  import java.io.FileOutputStream;  import java.io.IOException;  import org.testng.annotations.Test;  import jxl.Sheet;  import jxl.Workbook;  import jxl.read.biff.BiffException;  import jxl.write.Label;  import jxl.write.WritableSheet;  import jxl.write.WritableWorkbook;  import jxl.write.WriteException;  import jxl.write.biff.RowsExceededException;  public class NewTest {  @Test  public void StudentImport() throws IOException , BiffException , RowsExceededException , WriteException  {  FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac5\\Student.xls");  Workbook w = Workbook.getWorkbook(fi);  Sheet s = w.getSheet(0);  String a[][] = new String[s.getRows()][s.getColumns()];  FileOutputStream fo = new FileOutputStream("E:\\tycs\\stqa prac\\prac5\\studentdata.xls ");  WritableWorkbook wwb = Workbook.createWorkbook(fo);  WritableSheet ws = wwb.createSheet("result", 0);  int c=0;  System.out.println("performed by krunal 713");  for (int i = 0; i < s.getRows(); i++)  {  for (int j = 0; j < s.getColumns();  {  if(i >= 1)  {  String b= new String();  b = s.getCell(3,i).getContents();  int x= Integer.parseInt(b);  if( x < 60)  {  c++;  break;  }  }  a[i][j] = s.getCell(j, i).getContents();  Label l2 = new Label(j, i-c, a[i][j]);  ws.addCell(l2);  }  }  wwb.write();  wwb.close();  }  } |

**OUTPUT:**







**Part B:-**

**Aim:-** Write and test a program to read the data from product excel sheet and select the products which price is more than 10000.

**Code:-**

|  |
| --- |
| import java.io.FileInputStream;  import java.io.FileOutputStream;  import java.io.IOException;  import org.testng.annotations.Test;  import jxl.Sheet;  import jxl.Workbook;  import jxl.read.biff.BiffException;  import jxl.write.Label;  import jxl.write.WritableSheet;  import jxl.write.WritableWorkbook;  import jxl.write.WriteException;  import jxl.write.biff.RowsExceededException;  public class NewTest {  @Test  public void ProductImport() throws IOException , BiffException , RowsExceededException , WriteException  {  FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac5\\product.xls");  Workbook w = Workbook.getWorkbook(fi);  Sheet s = w.getSheet(0);  String a[][] = new String[s.getRows()][s.getColumns()];  FileOutputStream fo = new FileOutputStream("E:\\tycs\\stqa prac\\prac5\\productdata.xls ");  WritableWorkbook wwb = Workbook.createWorkbook(fo);  WritableSheet ws = wwb.createSheet("result", 0);  int c=0;  System.out.println("performed by krunal 713");  for (int i = 0; i < s.getRows(); i++)  {  for (int j = 0; j < s.getColumns();  {  if(i >= 1)  {  String b= new String();  b = s.getCell(3,i).getContents();  int x= Integer.parseInt(b);  if( x < 60)  {  c++;  break;  }  }  a[i][j] = s.getCell(j, i).getContents();  Label l2 = new Label(j, i-c, a[i][j]);  ws.addCell(l2);  }  }  wwb.write();  wwb.close();  }  } |

**Output:**

