

Practical no 4

AIM: Write and test a program to update 10 student records into table into Excel file using TestNG.

Theory**What is testNG**

TestNG is a testing framework for the Java programming language created by Cédric 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 → Build Path → Configure Build Path.."

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 → Install New Software...

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 → TestNG.

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

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import org.testng.annotations.Test;
import jxl.*;
import jxl.read.biff.BiffException;
import jxl.write.*;
import jxl.write.biff.RowsExceededException;
import java.io.*;

public class NewTest {

    @Test
    public void testImportExcel() throws IOException, BiffException, RowsExceededException, WriteException
    {
        FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac4\\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\\prac4\\Output.xls");
        WritableWorkbook ww = Workbook.createWorkbook(fo);
        WritableSheet ws = ww.createSheet("result", 0);
        System.out.println("Performed by krupal 713");
        for (int i = 0; i < s.getRows(); i++)
        {
            for (int j = 0; j < s.getColumns(); j++)
            {
                a[i][j] = s.getCell(j, i).getContents();
                Label l2 = new Label(j, i, a[i][j]);
                ws.addCell(l2);
                Label l1 = new Label(6, 0, "Result");
                ws.addCell(l1);
            }
        }
    }
}
```

```
for (int i = 1; i < s.getRows(); i++)
{
    for (int j = 2; j < s.getColumns() ; j++)
    {
        a[i][j] = s.getCell(j , i).getContents();
        int x =Integer.parseInt(a[i][j]);
        if(x> 40)
        {
            Label l1 = new Label(6 , i , "pass");
            ws.addCell(l1);
        }
    }
    else
    {
        Label l1 = new Label(6 , i , "fail");
        ws.addCell(l1);
        break;
    }
}
}

wwb.write();
wwb.close();
}
```

<terminated> NewTest [TestNG] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Sep 8, 2020, 3:32:56 PM – 3:32:58 PM)

[RemoteTestNG] detected TestNG version 7.3.0

Performed by krunal 713

PASSED: testImportExcel

```
=====
Default test
Tests run: 1, Failures: 0, Skips: 0
=====
```

```
=====
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
=====
```

	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	WS	STQA	INS	TOTAL		
2	1	krunal	65	60	50	175		
3	2	kunal	30	30	30	90		
4	3	mayur	55	55	60	170		
5	4	deva	50	45	65	160		
6	5	hemanth	45	50	65	160		
7	6	abhishek	50	45	60	155		
8	7	lara	55	60	55	170		
9	8	shravani	60	65	50	175		
10	9	sakshi	65	55	45	165		
11	10	subin	60	50	40	150		
12	11	tejas	55	45	50	150		
13	12	vaibha	50	60	55	165		
14								
15								

	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	WS	STQA	INS	TOTAL	Result	
2	1	krunal	65	60	50	175	pass	
3	2	kunal	30	30	30	90	fail	
4	3	mayur	55	55	60	170	pass	
5	4	deva	50	45	65	160	pass	
6	5	hemanth	45	50	65	160	pass	
7	6	abhishek	50	45	60	155	pass	
8	7	lara	55	60	55	170	pass	
9	8	shravani	60	65	50	175	pass	
10	9	sakshi	65	55	45	165	pass	
11	10	subin	60	50	40	150	fail	
12	11	tejas	55	45	50	150	pass	
13	12	vaibha	50	60	55	165	pass	
14								
15								