

St. Francis Institute of Technology, Mumbai-400 103

Department Of Information Technology

A.Y. 2020-2021

Class: SE-ITA/B, Semester: III

Subject: **Java Labs**

Experiment-5: Java Program to create and use Packages .

1. Aim:

- i. Create a class "Amount In Words" within a user defined package to convert the amount into words. (Consider amount not to be more than 100000).
- ii. Write a program to create user defined packages.

2. Prerequisite: Knowledge creating and using Packages in Java.

3. Requirements: Personal Computer (PC), Windows Operating System, Net beans 8.0.

4. Pre-Experiment Exercise:

Theory:

a. Packages:

A package in Java is used to group related classes. Think of it as a folder in a file directory. We use packages to avoid name conflicts, and to write a better maintainable code. Packages are divided into two categories:

- Built-in Packages (packages from the Java API)
- User-defined Packages (create your own packages)

Syntax for using built-in packages:

```
import package.name.Class; //imports a single class from the package
import package.name.*; //imports the whole package
```

Syntax for creating user defined packages:

```
create packagename;
```

5. Laboratory Exercise

A. Procedure

- i. Open Notepad++.
- ii. Type the code and save it.
- iii. Open cmd and explore till the folder where the code resides..
- iv. To compile the code use: `javac -d . classname.java`
- v. To run the code use: `java package.classname`

B. Program code with comments:

Write and execute your program code to achieve the given aim and attach it **with your own comments with neat indentation.**

6. Post-Experiments Exercise

A. Extended Theory:

1. Explain some of the built-in packages used for Java.
2. Explain the benefits of using packages in Java.

B. Results/Observations/Program output:

Present the program input/output results and comment on the same.

C. Questions/Programs:

1. Write a Java Program using static import.

D. Conclusion:

1. Write what was performed in the experiment/program.
2. What is the significance of experiment/program?
3. Mention few applications of what was studied.

E. References

1. Balguruswamy, "Programming with java A primer", Fifth edition, Tata McGraw Hill Publication.
2. Let Us Java-Yashwant Kanetkar.
3. Learn to Master JAVA, from Star EDU solutions , by ScriptDemics.
4. Java 8 Programming-Black Book,by-Dreamtech Publications.
5. www.programmingsimplified.com