

St. Francis Institute of Technology, Mumbai-400 103

Department Of Information Technology

A.Y. 2023-24

Class: SE-ITA/B, Semester: III

Subject: **Java Labs**

Experiment 7

1. Aim: Write a program to demonstrate java packages

Problem Statement:

- i. Create a class "Amount In Words" within a user defined package to convert the amount into words.

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

3. Requirements: Personal Computer (PC), Windows Operating System, JDK 1.8 and above, online java compiler/IDE.

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`

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. Questions/Programs:

- 1. Write a Java Program using static import.
- 2..Write a program that creates a user defined package and import that package in another package.

C. Conclusion:

- 1. Write what was performed in the experiment/program.
- 2. Mention few applications of what was studied.

D. 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