

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 6

1. Aim: Write a program to demonstrate the concept of overloading and overriding.

Problem Statement:-

1. An employee works in a particular department of an organization. Every employee has an employee number, name and draws a particular salary. Every department has a name and a head of department. The head of department is an employee. Every year a new head of department takes over. Also, every year an employee is given an annual salary enhancement. Identify and design the classes for the above description with suitable instance variables and methods. Use Concept of Method Overloading.

2. Prerequisite: Knowledge of method overloading and overriding.

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

4. Pre-Experiment Exercise:

5. Laboratory Exercise

A. Procedure

1. Write java code and save with .java extension
2. Compile program using javac filename.java
3. Run program using java filename

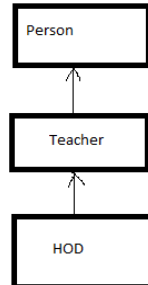
6. Post-Experiments Exercise

A. Extended Theory:

1. Differentiate between Static Polymorphism and Dynamic Polymorphism.
2. Explain visibility of different access specifiers.

B. Questions/Programs:

1. Write a code to implement following class diagram, each class will have id, name and address, make



necessary assumptions and use concept of method Overriding.

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