Object Oriented Programming with Java
Practical-6

<u>Nested class and Reflection API</u>

EXERCISE

1) Create an outer class Student having data members idno,name,sem,department and displayInfo().
   displayInfo() creates an object of Result class and calls the displayResult() of inner class Result.
   displayResult() will access and print Student and Result details. (Take require data members in result class)

2) Write a Java program to demonstrate the static inner class.

3) Write a Java program to demonstrate private inner class. Using your implementation shows that inner classes which are declared as private are completely hidden.

4) Create an outer class PersonalComputer which has basic details of a computer like price, color, model etc. Now create inner classes required to store information about Processor, RAM, HardDisk, Motherboard etc. which encapsulates their respective details. Write a Java program to create an object of type PersonalComputer and display complete details of it.

5) Write a Java program using reflection API to get the following details of any class.
   a) Class Metadata
      i)   Name of the class.
      ii) List of interfaces implemented by the specified class
      iii) Class Modifiers
   b) Fields Metadata
      i)   Variable name
      ii) Data types of the variable
      iii) Access modifiers of the variable
   c) Methods Metadata
      i)   Method name
      ii) Return types of the method
      iii) Access modifiers of the method
      iv) List of parameter types of the method
   d) Constructors Metadata
      i)   Constructor's name
      ii) Access modifiers of the constructor
      iii) List of parameter types of the constructor