

### **Practical-5**

1. Create a class named Date having three instance variables named Day, Month and Year also has two set\_date() to catch values of instance variables and get\_date() to display caught values on the output screen. And create another class DateDemo containing main() method.
2. Create a class Calculator describing basic arithmetic operations addition, subtraction, multiplication and division. For each operation define separate method to evaluate variables values. For the same class define two additional methods getinfo() for setting values and display() to output calculated values. Also create a new class simple\_calc which houses main methods.

Note: Use switch case to select appropriate operation from main() method.

3. Create a class named Box to find volume of box using method. Box class having instance variables named length, width and height must be filled by initialization and get their value from keyboard.
4. Create a Class named Equation having following methods which finds roots quadratic equation:
  - a) Get\_info() :- to set instance variable values.
  - b) Real():- to evaluate real roots values
  - c) Equal\_values():- to evaluate equal values.
  - d) Imaginary():- to calculate imaginary root i.e not possible roots.

Create an another class Quadratic residing main() methods which contains finds Delta values and according to result call the appropriate method in Equation Class.

5. Create a class Student having instance variables rollno, age, height, weight and contact for student and also has two methods set\_info() and get\_info() to set and get instance variable values respectively. A main() method resides in student\_info class which sets and gets info for 5 students.
  - a) Use parameterized constructor to initialize instance variable values.

- 6 Create a class Exam having stu\_name, rollno, sub\_code, sub\_name, InternalMarks and ExternalMarks also contains two methods Calculate\_result() and Show\_result().

Students having marks to be shown in output with his name and roll\_no.

A main() method is contained by Exam\_demo class.

- a) Use parameterized constructor with local variable named as instance variables which hides them.
- b) Use this pointer to prevent instance variable to be overridden.

Note: Use your additional variables as per your needs.