

- 1. Write a program contains a class EQ that has data members: a, b, c as float. It contains a constructor with default parameters, a function to solve the quadratic equation with parameters a, b, c and display its roots by using the quadratic formula  $b^2 - 4ac$ . In main function define three objects of this class, and apply its function on them.**
- 2. Write a program contains a class Data that has data members: P[2][2] (float). It contains several forms of constructors, copy constructor, a function to return the following sum  $\sqrt{(P_{0,0} - p_{1,0})^2 + (p_{0,1} - p_{1,1})^2}$  and a function to display data members. In main function, define several objects of this class, and apply its function on them.**
- 3. Write a program to count the number of objects created by class Student that has data members: name (string), age (float), ID (int), a function to read data members, and a function to display data members. The program must be able to display the result even no object is created. Also find a way to create a student ID number without reading it — put the first ID = 3333.**