

SYBSC Computer Science – Sem IV - .NET

Practical – 2 C# Programs based on OOP Concepts

Classes

1. Write a C# program to create a namespace – “oop”. Create a class Student in the namespace with data members to store – Rollno, Name of the Student, marks scored in 3 subjects and average marks. Create the following functions in the class.
 - a. Constructor to initialize the values for Rollno, Name and marks scored.
 - b. Function to calculate the average
 - c. Function to display the details of the student

In the main program, create an object of type student and call the functions to calculate the average and to display the details

Parameterized Constructor

2. Change the constructor to parameterized constructor in the above program and repeat the execution. Get inputs from the user.

Constructor Overloading

3. Create two constructors for the above program – one with parameters and the other without parameters. Create two student objects out of which one will be created using default constructor and the other will be created using parameterized constructor (Get input from the user).

Method Overloading

4. Change the above program – Create another method with the same name to calculate average which accepts a parameter for internal marks. Get the input for internal marks from the user. If the internal marks is 0, method with parameter is called. If the internal marks is non-zero, method with parameter is called. Add internal marks to the average of three marks inside this method.

Inheritance

Create a class Student by using the same specification as Question 1. Create another class SYBSC which inherits the Student Class. Create data member to store the stream for SYBSC class. Create a parameterized constructor for SYBSC (Get inputs from the user).

In the main program, create an object of type SYBSC and call the functions to calculate the average and to display the details