

Assignment 9

1- Create a simple collage software system to control college courses which contains:

- Instructor class that has:
 - Attributes: (First Name, Last Name, id, password)
 - Methods: (Default and Parameterized Constructors, Setters, Getters, Print info)
- Student class that has:
 - Attributes: (First Name, Last Name, id, password)
 - Methods: (Default and Parameterized Constructors, Setters, Getters, Print info)
- Course class that has:
 - Attributes: (Name, id, Instructor, Vector <Student> Students)
 - Methods: (Default and Parameterized Constructors, Setters, Getters, A method to return all students info, Print all course info)

2- Create a Calculator class which contains:

- Attributes: two data members with the same (template data type)
- Methods: four methods => add (), subtract (), multiply () and divide ()
- Then in main function create an object of calculator and use two integers to implement the four methods, then reuse the same object with two doubles and call the four methods again.

3- Write a program and recurrence relation to find the Fibonacci series of n where $n > 2$.
Mathematical Equation:

function will return : 0 ==>>> if $n == 0$;
function will return : 1 ==>>> if $n == 1, n == 2$;
and it will return ==>>> $\text{fib}(n) = \text{fib}(n-1) + \text{fib}(n-2)$ otherwise;

Example :

Input: n = 5

Output : Fibonacci series of 5 numbers is : 0 1 1 2 3