**OO Software Development**

**LAB 1 for EAD handup**

**Due : 06/Oct/2015**

**Topic: Classes and Objects – p1**

***Lab 11 of 'C# and OO primer' section***

# For all the exercises below:

1. read the problem statement closely
2. identify the inputs, processing and outputs of the program
3. design an algorithm to solve the problem
4. specify the algorithm in pseudocode
5. refine the algorithm to a sufficient level of detail
6. select test data
7. implement the algorithm in C#
8. run the test data through the program checking the results
9. debug the program if necessary

**Task 1** (BankAccount1.cs)

Create a class called BankAccount which contains fields for the account number, balance, and overdraft limit (all public).

Add a PrintDetails method which prints all data about the bank account to the console.

In the same source file create a test class which creates 2 bank account objects with test data and calls PrintDetails on each.

**Task 2** (Rectangle.cs)

Create a class called Rectangle which has 2 fields – length and width. Add a constructor to the class which allows the length and width to be specified when a rectangle object is constructed.

Add a method CalcPerimeter to the class which calculates and returns the length of the perimeter of the rectangle.

Add a method CalcArea to the class which calculates and returns the area of the rectangle.

Create and test a test class which creates 2 rectangles with different data. The test class should then output the area of the rectangle with the largest perimeter.

Create an additional 4 rectangles and store them in an array. Use a foreach loop to iterate across the array printing the perimeter and area of each to the console