**Advanced programming CW207-3 - C# Practical 1**

Unless otherwise stated, all your programs should be created as Visual StudioC# *windows form applications*. All code must be well commented and consistently indented.

A deadline will be announced in class. Only questions 1 to 4 are part of the practical, question 5 and 6 are extra exercises.

You will be required to demo and explain your code from the exercises below.

Every program should include your name and student number in the comments section at the top of each program. Upload the code to C# Lab 1 in the Assignments section in blackboard.

1. Write a C# application that implements a partially functional calculator (see Windows calculator for functionality). The program must allow the user to enter numbers and perform, addition, subtraction, multiplication and division. The user may enter two operands and perform a calculation, then using the result of this calculation the user can perform further calculations. The program must implement the numeric keypad using buttons on the form.
2. Write a C# application that implements a currency converter. The program must allow the user to convert between currencies, for example between Euros and Dollars, between dollars and sterling. The user should be able to use the result of an initial conversion as input to further conversions and so on. Include at least three major currencies.
3. Write a C# application that creates a multi conversion tool. The program must allow the user to choose the type of conversion that they require, perform the conversion and output the result of the conversion. The user should then be able to perform another conversion. The multi conversion tool will allow the user to convert from inches to feet (12 inches equals 1 foot), from pounds to Euro (1 Euro equals 0.79 pounds), or from Celsius to Fahrenheit (celsius = 5/9 (fahr – 32) or fahr = (celsius \* 9/5) + 32)).
4. Add menus to 3 that will allow the user to access all functionality of the program via the menus.

EXTRA EXERCISES

1. Create a simple document editor. The editor should function in a similar fashion to Notepad. Initially you will only be able to add text and delete text in your editor window, but eventually you will be able to save your documents to the hard drive.
2. Add functionality to the calculator in Question 1 so as to more fully mimic the functionality of the windows calculator.