Assignment:

1. Write a program using HEX code for a Mu0 processor to solve the following problem:

$$y = \sum_{i=1}^{15} x_i \quad \text{where } x_i = i \quad \text{(or y=1+2+3+....+15)} \qquad \text{[30 Marks]}$$

2. Write ARM 7 assembly language code for the ViSUAL emulator that would
    a. Add two 8 bit numbers. [10 marks]
    b. Multiply a number by 8 without using the MULT instruction. [30 marks]
    c. Set the zero flag if two 8 bit numbers are the same and save the number to memory address 0x10C. [30 marks]

Important notes:

a. The assignment must be submitted by 12 pm (noon) on the Friday of week 9 (20th April 2019).
b. You must submit text files, preferably with the suffix .s.
c. If you upload PDF, DOC, DOCX, or any form of compressed files (rar, zip, etc), or any other file that I cannot compile, that file will not be opened and you will receive a **zero** mark.
d. Unfortunately the MuO processor does not allow for comments in the code. If you wish you may upload an additional text file to explain your code, referring to line numbers.
e. For the ARM 7 assembly language you must comment your code to obtain full marks.
f. Marks will be given to you within 2 weeks of the submission date. You may come and see me to discuss your mark within 10 days of receiving the mark. If your grade is below 50% I strongly recommend you come and discuss with me.