

# Assessed Assignment Part 1

- The assessed work for this course comes in two parts. This is Part 1.
- The overall exercise will be to produce an evaluator for arithmetic expressions. The code you produce for Part 1 will be a component of this.
  - Part 1 deadline: Tuesday 7<sup>th</sup> March at 17.00
  - Part 1 submission: Instruction for electronic submission of the coursework will be given out nearer the deadline. You will be required to submit the source code of your program, which must be for a console application. You must also provide a test data file as input of your program.
  - Part 2 will be given to you later. Don't worry about it until then.

## Part 1 Specification

- Let's define a *variable assignment* as a string comprising a variable name, followed by the character "=", followed by a positive integer. Here's an example: `A3=45`
- Your task is to write a console program that reads a file of variable assignments (one per line) into a data structure (a list, perhaps), which can then be used to look up the value of any given variable.
- You must define the data structure yourself. Don't use any built-in lists.
- Your code should include a procedure called `lookUp()` that takes a string *variableName* and finds the value of the variable whose name matches the string.
- After the program has read in the file, it must go into a loop which repeatedly asks for the name of a variable and writes the value of that variable on the screen.
- Use the file name `inputfile.txt` for the variable assignments. (You can make a test file using any text editor on Windows.)
- You will need to learn how to manipulate strings in C++. Read:  
<http://www.functionx.com/cppbcb/Lesson19.htm>