Practical class 4

General comments

The objectives of this fourth lab session are:
   (i)   To practise the use of logical conditions.
   (ii) To learn how to use conditional statements (if and switch).
   (iii) To learn how to write basic loops (for, while and do-while).
   (iv) To practise sanity checks and error handling.

Instructions

1. First, make sure that you've read and understood Self-study package 2 on "Error handling", which can be found under Week 4 on ELE.

2. Write a program that lets the user choose between three options:

   a) Calculate the sum of a user-input list of integers (as many as the user wishes).

   b) Calculate the value of the quadratic $y = ax^2 + bx + c$, where a, b, c and x are floating-point numbers entered by the user.

   c) Quit the program.

The program must (i) allow the user to repeat the menu options as many times as desired and (ii) check that the user only enters one of the three menu options.

3. Explore the different error messages "strerror" can generate. Use a "for" loop to automate the process. Write each error message to a file called "strerrors.txt". Make sure to check that "fopen()" does not return an error and perform an appropriate action if it does.

4. OPTIONAL EXTRA. Practise if-else statements and logical operators by playing John Rowe's quiz at http://newton.ex.ac.uk/teaching/resources/jmr/quiz2.html.