CS111 Assignment 3

1. Write a complete C++ program that does the following:

   (a) Declares two variables, savings and expenses, of type double.
   (b) Prompts the user for the amount of savings and expenses and stores in the corresponding variable.
   (c) Write an if–else statement that
      - outputs the word Solvent
      - decreases the value of savings by the value of expenses
      - sets the value of expenses to 0, provided that savings is at least as large as expenses
   (d) If, the savings is less than expenses, the if-else statement
      - outputs the word Bankrupt
      - does not change the value of any variable

2. Write a complete C++ program that does the following:

   (a) Declares a variable number of type int.
   (b) Prompts user for a positive 3-digits integer.
   (c) Tests the input for out of bound cases – larger or smaller than 3 digits using if–else statements.
   (d) Calculates and prints the sum of the digits if the input value is valid.
   (e) Otherwise, display error message and terminate the program.

Program output should look similar to below:

Question 1:

savings: 10000.0 (input)
expenses: 4600.0 (input)
savings = 5400.0 (resets savings)
expenses = 0.0; (resets expenses)
Solvent (output)

Question 2:

Please input 3-digit positive integer. 441
The sum of all digits in 441 is 9.