

### 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.
```