Course : COMP-2650
Instructors : Dr. Boufama
Assignment : 02
Due date : Friday Feb. 16, 11.59pm

Write a program in C/C++ (or Python or Java), call it **truthTableGenerator**, to generate the truth table of 3-variable Boolean functions, with the following requirements:

- Your program takes as input a 3-variable Boolean function in the form of a **sum-of-products**. For example, the input can look like "AB" + "AB'C" + "A'B'C"". The double quotations are needed so that the **'** is taken as a regular character, negating the preceding variable, and not considered a special character.
- The evaluation of each term, e,g., AB'C, is done in a separate function, called, **evalTerm(int A, int B, int C, char *term)** that return the Boolean value (0 or 1) of the corresponding term.
- Your program should print the Boolean function followed by its truth table.
- You can test the uploaded Linux-executable to understand all the requirements.

Test runs:

- $ **truthTableGenerator** // call without arguments
  $ Truth table generator for 3-variable Boolean functions
  $ Usage: enter a Boolean function as a sum of products
  $ E.g.: ./a.out "AB"" + "BC"" + "A'BC"
- $ **truthTableGenerator** "AB"" + "BC"" + "ABC" + "A'B'C""
  F is the sum of 4 product terms
  F = AB' + BC' + ABC + A'B'C'

  Truth table of F

A B C	F
0 0 0	1
0 0 1	0
0 1 0	1
0 1 1	0
1 0 0	1
1 0 1	1
1 1 0	1

1 1 1 | 1