

CS 211 Introduction to Programming
Fall 2019

Programming Assignment 3

(Assigned: September 5, 2019; Due: September 12, 2019)

*The goal of this assignment is to write a program that (a) handles numeric values of type **double**, and (b) combines branching and iteration in the right way to accomplish a desired task.*

Write a C++ program that prompts the user to enter some numeric values, finds the sum of all the entered values, and counts how many of those values are positive and how many are negative. Entering 0 should terminate the sequence of values and cause the results to be displayed.

Notes:

- The name of your source file must be: **pa3.cpp**
- The user can enter numeric values with or without a fractional part. The program should display the sum of the entered values with exactly 3 places after decimal point (as shown in the sample run below).
- A typical sample run of your program should look like (output **blue**, input **red**) :

```
Entering 0 will terminate the sequence of input values.  
Enter a value: 6  
Enter a value: -3.4  
Enter a value: 77.0  
Enter a value: 2.34  
Enter a value: -9  
Enter a value: 0  
  
Number of +ive values: 3  
Number of -ive values: 2  
Sum of all values: 72.940
```

Assignment Submission Instructions:

Submit just your **pa3.cpp** file via Blackboard. Please do not submit any other file contained in your Visual Studio 2019 project for this assignment.

Grading Rubric:

Your program submission will be graded according to the following rubric:

| | |
|---|-----------|
| The name of the submitted program source file is pa3.cpp (not pa3.c or Pa3.cpp or PA3.cpp etc.) | 1 |
| The first two lines (student's name, and student's WSU ID) of the required comments at the top of the program are included | 1 |
| The variable identifier names used are descriptive | 1 |
| A good indentation scheme is used throughout the program | 1 |
| The program compiles and links with no errors or warnings | 4 |
| The program works correctly for mixed +ive and –ive input values | 5 |
| The program works correctly when all input values are either +ive or -ive | 4 |
| The program works correctly for 0 input values | 3 |
| TOTAL | 20 |