Homework #4 Monday 1/29 at class time

Create a project in your homework's repository

Project name: hw4.

Source file name: hw4.cpp,

Read in integer values from cin until I press <ctlr>-z. This is the same as the eof in a file. As you read in each number, you will need to track the minimum, the maximum, the count, the sum and the average. As each number is read in and processed, you will need output the statistics you are tracking to the screen neatly formatted with a decimal precision of four. **YOU MAY NOT SAVE THE NUMBERS INTO AN ARRAY, use the eof function, or a break statements, or a continue statements.** Please see the document on reading until EOF.

A sample run may look like this: My input is in red

```
Enter <Ctrl>-z to terminate input
Enter a number: -34
        Count = 1
        Minimum = -34  Maximum = -34
        Sum = -34   Average = -34

Enter a number: 45
        Count = 2
        Minimum = -34  Maximum = 45
        Sum = 11   Average = 5.5

Enter a number: 98
        Count = 3
        Minimum = -34  Maximum = 98
        Sum = 109   Average = 36.3333

:

Enter a number: 101
        Count = 6
        Minimum = -34  Maximum = 101
        Sum = 241   Average = 40.1667

:

Enter a number: -56
        Count = 8
        Minimum = -56  Maximum = 101
        Sum = 278   Average = 34.75
:

Enter a number: 29
        Count = 13
        Minimum = -67  Maximum = 101
```

```
        Sum = 281   Average = 21.6154

Enter a number: ^Z
Press any key to continue . . .
```

Make sure and test your program thoroughly

- Try all negatives
- Try all positives
- Try no numbers (hit ctrl z right away and should not show min,max,sum,average or count)
- Try a mix of both positive and negative numbers

Remember the limits library to get the min and max for integers in the numeric_limits class
#include <limits>

Set your minimum variable to the maximum value possible and the maximum value to the min
This way the first number you enter will change both of the values

```
cout << "Minimum value for int: " << numeric_limits<int>::min() << endl;
cout << "Maximum value for int: " << numeric_limits<int>::max() << endl;
```

Remember to put a hw4.cpp into your gitlab repository.
Please place the template header inside hw4.cpp.

4 points if it works on the above cases
0 points if it does not work.