Lab 7

Write a C++ program named *statistics.cpp* that computes the various statistics: average, largest, and smallest values based on the values read from a data file.

You need to write **2 user defined functions** (in addition to the main function) for this program. Develop the two functions in two steps. That is to write one function, compile and run the program with that function. If successful, move on to add the 2nd function, compile and run that program. Do not try to implement all the functions at once.

1. Write a user defined function named "*ComputeStatistics*". This function is responsible for:
    - read data one by one from the data file (remember: file streams are always passed to function as reference parameters)
    - the values as they are read in,
    - Count the number of values read,
    - Compute the statistics: smallest, largest, and average,
    - Return all the information (count and all the statistics) back to the calling function through reference parameters.

2. Write a function named "DisplayResults". This function is responsible for:
    - Display the results as shown in the example program runs
    - Question: Should the parameters to this function be value parameters or reference parameters?

When you write the functions, think about:

- What should be the type of this function? void or value returning?
- What are the parameters of this function?
- Should each parameter be passed by value? or by reference?

Write your program in such a way that it prompts the user for data file name, and proceed to process data in that file.