CSCD 240
Lab 4

Write a program that reads one or more sets of numbers from the user. Each set of numbers consists of an integer N followed by N integer values (N is guaranteed [by you] to be > 0 and <= 25). The values in the array will of type int.

You must use a 3 file format: the other files cscd240_s13__lab4.h, cscd240_s13_lab4functions.c

I have provided the a main method; however it is in a Java file. You will need to keep the method names, and convert the Java code to C.

Program Flow

The program starts the user must enter a value greater than 0 and less than 26. You must ensure this.

The user will then enter that many values.

Display a menu that has the following options

1)   Change the values in the array.

2)   Change N and the values in the array

3)   Find and display the mean

     Find and display the median

Definitions for purposes of this problem:

- Mean is defined as the result of dividing the sum of the N numbers by N, the number of numbers.
- Median is the "middle" number. That is, in an ordered list of numbers, the one in the middle of the list is the median. If N is even, then the mean of the two numbers in the middle is the median.

Sample Run:

How many numbers (between 1 and 25) 28

How many numbers (between 1 and 25) 5

Please enter 5 numbers

1
3
5
4
5

 Go Again: y

Please choose

1)   Change the values in the array.

2)   Change N and the values in the array

3)   Find and display the mean

        Find and display the median

Choice -- > 9

Please choose

1)   Change the values in the array.

2)   Change N and the values in the array

3)   Find and display the mean

        Find and display the median

Choice -- > 3

Mean is: 3.60   Median is: 4.0

 Go Again: n

Development Details

- No set of numbers will be bigger than 25. This means you WILL declare a static array of 25. You will fill that array with as many numbers as specified within the file. You will have to ensure you don't use more of the array than required.
- You will use a constant for the 25
- Error checking for range is a must

To Turn In

Submit a zip file:

- Named as usual.
- It will contain your source files .C and .H
- A sample run stored in a file named **cscd240_s13_lab4out.txt**.
- A simple makefile