Understanding

For this assignment, I must design a program that prompts the user for the number of integers the user would like to enter. Then the program must prompt the user to enter said number of integers. Afterwards, the program will display the lowest number and the smallest number. I think some newly learned things which may be used in this program are arrays and for loops. I will need to create an array based on the initial user prompt. Since I have no way of knowing the amount of integers the user will choose to input, it makes sense to use a for loop to go through every integer to find the maximum and minimum integers. The array will be useful in that it can store all of the integers inputted by the user, while the for loop can cycle through each integer, evaluate a condition (minumum or maximum), and execute a process (in this case a cout).

Testing Plan

Test	Expected Result
Negative test	Enter all negative integers. Given -10, -11, -12, -13, -14 will the program recognize - 10 as the maximum and -14 as the minimum. I suspect negative numbers will be accessed for minimum or maximum qualities accurately.
exponential integer amount	If an exponent amount n^x is entered as an integer amount, will the program create an array of that size? I suspect that the program will be able to handle an exponential integer value.
exponential integer value	If an exponential amount n^x is entered as an integer value, will the for loop correctly identify it as a maximum or minimum? What about a negative integer value? I don't know what may happen. I suspect that the array will not be created.
character or string entered as an integer value	Will the for loop continue to go through the array if it encounters a character or string? I think it will not continue to loop as the if/else is only searching for maximum or minimum amounts. Maybe an if/else/else could be implemented to "catch" any character or string entries.
a non-integer value inputted as an integer	Will the program work if a non-integer value, say 1.34, is entered? I predict it would with

	minor augmentation to the code, like setting the array equal to a float value.
negative integer amount	Although the assignment assumes the user will input a value greater or equal to one, what happens if the user enters a negabe inputted. I believe this will produce an error as an array cannot have a negative value.

Design

Here is the pseudocode for the program:

1. Prompt user to enter integer amount.
2. Set user input to equal array length.
3. Prompt user to enter integers.
4. Assign each integer to the array.
5. Run a for loop that cycles through each integer in the array.
6. With an if/else function identify the maximum and minimum.
    a. if maximum, set maximum integer to variable maxInt
    b. if minimum, set minimum integer to variable minInt
7. Print maxInt and mimInt.