* **Understanding:**

Assignment 3.a will ask a user for how many integers they would like to input and then ask them to enter those integers. The program will then be able to output, to the user, the min and max from their data set.

For this project, from chapter 5, it will need a while loop with a counter. The purpose of the loop Is to allow the user to input all their integers. The while loop will be located after the statement to enter integers. The input for this statement will have to be in the loop so that the user can keep inputting integers until their specified amount is met. For each integer entered the counter will add 1 till the integer specification is met.

From chapter 4, there will need to be some if statements within the while loop. These if statements will compare each of the users inputs and determine if the integer qualifies to be the min or max. Once all the integers have been entered, and the counters condition is satisfied, the min and max will then be outputted to the screen and the program ends.

* **Testing Plan:**

|  |  |
| --- | --- |
| Description | Expected Result |
| User wants 3 integers & inputs: -905, 524, & 3 | Min: -905 Max: 524 |
| User wants 1 integer & inputs: 345 | Min: 345 Max: 345 |
| User inputs: 152, 63, & -1000 | Min: -1000 Max: 152 |
| User inputs: 2147483648 | Too large for an int to hold. |
| User wants 5 integers and enters -5 | The while loop will be skipped and trash will be outputted for min and max. |
| User enters a Character as an input of one of their integers. User enters 20b instead of 206. | The program should only use the integer portion and output 20 as min and max |
| Inputs: 50, -60, 7085, & -805b | Min: -805 Max: 7085 |

* **Design:**

Get how many integers to enter from user

Get number of integers

Enter your integers

While (number of integers > counter)

Get integers from user

Add 1 to counter

Is user input < current min?

User input = current min

Is user input > current max?

User input = current max

Loop back until counter = number of integers

Output the min and max