

Lab 3-1 Report

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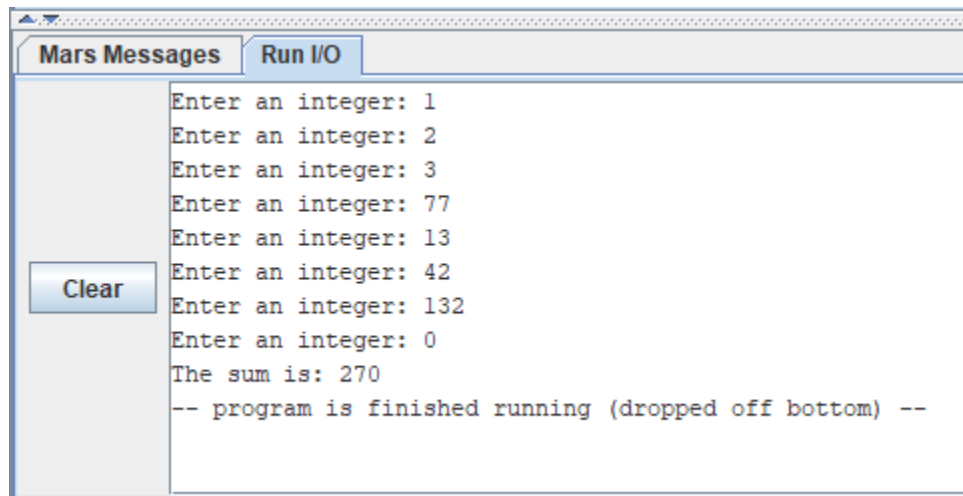
Listing of assembly code:

- 38 lines of assembly code

Summary of Project Implementation:

In this lab I created a program that kept a running sum of the integers a user puts into a console, until a 0 is inputted. The program does this by continuously prompting the user to input an integer, and then storing that input in a register. After checking to see if the user inputted a zero, it adds the integer to the sum which is also stored in a register. Once the user inputs a zero, the program breaks out of the loop, and displays the total sum to the console.

Results:



The screenshot shows a window titled "Mars Messages" and "Run I/O". On the left side of the window is a "Clear" button. The main area of the window displays the following text:

```
Enter an integer: 1
Enter an integer: 2
Enter an integer: 3
Enter an integer: 77
Enter an integer: 13
Enter an integer: 42
Enter an integer: 132
Enter an integer: 0
The sum is: 270
-- program is finished running (dropped off bottom) --
```

Conclusion:

One lesson I learned while completing this lab was that it is very important where the jump instruction goes in the assembly code. This was an important lesson for me because I ran into problems with this lab because I placed the jump command in an incorrect location, and it caused the program to perform unexpectedly. The biggest problem I faced while completing this lab was where to initialize the sum. I had the sum initialized inside of the loop for most of the time I was attempting to complete it, and it was causing the sum to be incorrect.