



Your program will find the sum of numbers input and display all of the input values. You will be writing an assembly language project (using the virtual machine described in class and available on Canvas) to perform a series of three tasks. These tasks will build on each other, starting with the simplest program and progressing to the full program. The full program will read in numbers from the keyboard until the value -1 is entered, then display all of the numbers that were entered, followed by their sum.

## Task 1:

Write a program that will read in numbers until the value -1 is entered on the keyboard. Call this program 'task1.asm' (use the .txt suffix if you are using eclipse to write the program).

## Task 2:

Make a copy of your 'task1.asm' file called 'task2.asm' using "cp task1.asm task2.asm" on the shell command line. This program should read in numbers until -1 is entered and then display the sum of all single digit numbers that were entered.

## Task 3:

Make a copy of 'task2.asm' and call it 'task3.asm'. This final version should read in all values and AFTER the -1 is entered, it should display all of the numbers entered followed by printing out the sum of these numbers. The stack must be used for this program.

## **Submission:**

Your submission has to run on the virtual machine used in class and must be written in that assembly language. You should submit it as an attachment on Canvas. The three files should have \*.asm suffixes. If you used \*.txt suffix, please change to \*.asm before submission.