

ML Assignments 1

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Batch: S4 Comp

Assignment 1:

Code:

```
section .data
    msg1 db 10,13,"Enter 5 64 bit numbers"
    len1 equ $-msg1
    msg2 db 10,13,"Entered 5 64 bit numbers"
    len2 equ $-msg2

section .bss
    array resd 200
    counter resb 1

section .text
global _start
_start:
    ;display
    mov Rax,1
    mov Rdi,1
    mov Rsi,msg1
    mov Rdx,len1
    syscall
    ;accept
    mov byte[counter],05
    mov rbx,00

loop1:
    mov rax,0 ; 0 for read
    mov rdi,0 ; 0 for keyboard
    mov rsi, array
    add rsi,rbx
    mov rdx,17
```

```

syscall
add rbx,17
dec byte[counter]
JNZ loop1
mov Rax,1
mov Rdi,1
mov Rsi,msg2
mov Rdx,len2
syscall
mov byte[counter],05
mov rbx,00
loop2:
    mov rax,1
    mov rdi, 1
    mov rsi, array
    add rsi,rbx
    mov rdx,17 ;16 bit +1 for enter
    syscall
    add rbx,17
    dec byte[counter]
    JNZ loop2
    system call
    mov rax ,60
    mov rdi,0
    syscall

```

Output:

```

vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ nasm -f elf64 -g -F stabs add.nasm
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ld -o add add.o add
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ./add
Enter 5 64 bit numbers:9865348901234562
3782307865437756
5678934567011245
8896547892213407
6545348901234523

Entered 5 64 bit numbers:9865348901234562
3782307865437756
5678934567011245
8896547892213407
...
6545348901234523

```