

ML Assignment

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Batch: S4 Comp

Assignment 2:

Code:

```
%macro scall 4
    mov rax,%1
    mov rdi,%2
    mov rsi,%3
    mov rdx,%4
    syscall
%endmacro
section .data
    m1 db 10d,13d,"Enter a string: " l1 equ $-m1
    m2 db 10d,13d,"Entered String: " l2 equ $-m2
    m3 db 10d,13d,"Length: " l3 equ $-m3
section .bss
    buffer resb 50
    size equ $-buffer
    count resd 1
    dispnum resb 16
section .text
global _start
_start:
    scall 1,1,m1,l1
    scall 0,0,buffer,size mov [count],rax
    scall 1,1,m2,l2 scall 1,1,buffer,[count] scall 1,1,m3,l3
    mov rsi,dispnum+15 mov rax,[count] mov rcx,16
    dec rax
UP1:
    mov rdx,0
    mov rbx,10
    div rbx
    add dl,30h
    mov [rsi],dl
    dec rsi
    loop UP1
```

```
scall 1,1,dispnum,16
mov rax,60
mov rbx,0
syscall
```

Output:

```
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ nasm -f elf64 -g -F stabs string.nasm
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ld -o string string.o string
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ./string

Enter a string: developers

Entered String: developers

... Length: 0000000000000010vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$
```