

ML Assignment

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Batch: S4 Comp

Assignment 3:

Code:

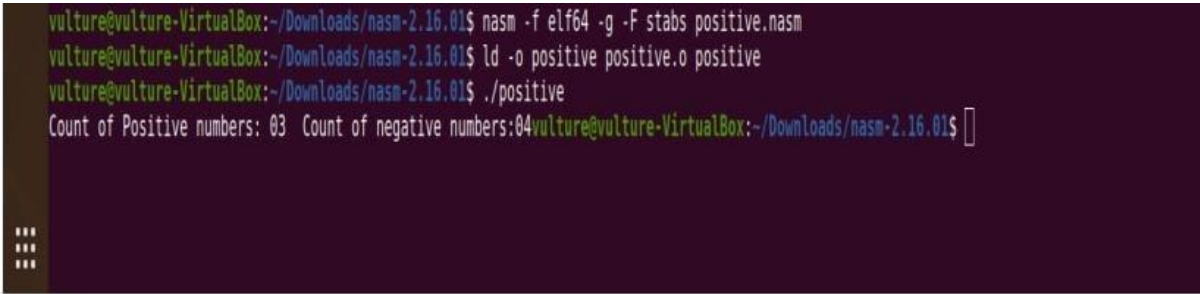
```
%macro output 2
    mov rax,1
    mov rdi,1
    mov rsi,%1
    mov rdx,%2
    syscall
%endmacro

section .data
msg1 db 10,13,"Maximum number is : " len1 equ $-msg1
arr db 11h,3Ah,18h
section .bss
count resb 1
maxi resb 4
section .text
global _start
_start:
    output msg1,len1
    mov byte[count],05
    mov rsi,arr
    mov al,0
    repeated:
    cmp al,[rsi]
    jnc skip
    mov al,[rsi]
    inc rsi
    dec byte[count] jnz repeated
skip:
    inc rsi
    dec byte[count] jnz repeated
    call display
exit:
    mov rax,60
    mov rbx,0
    syscall
display:
    mov bl,al
    mov rdi,maxi mov cx,02
```

up1:

```
    rol bl,04
    mov al,bl
    and al,0fh
    cmp al,09h
    jg add37
    add al,30h
    jmp skip1
add37:add al,37h
skip1:
    mov [rdi],al
    inc rdi
    dec cx
    jnz up1
    output maxi,4
    ret
```

Output:



```
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ nasm -f elf64 -g -F stabs positive.nasm
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ld -o positive positive.o positive
vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$ ./positive
Count of Positive numbers: 03 Count of negative numbers:04vulture@vulture-VirtualBox:~/Downloads/nasm-2.16.01$
```