

ML Assignment

Name: Akanksha Lokhande

Roll No: 2039

Batch: S4 Comp

Assignment 5:

Code:

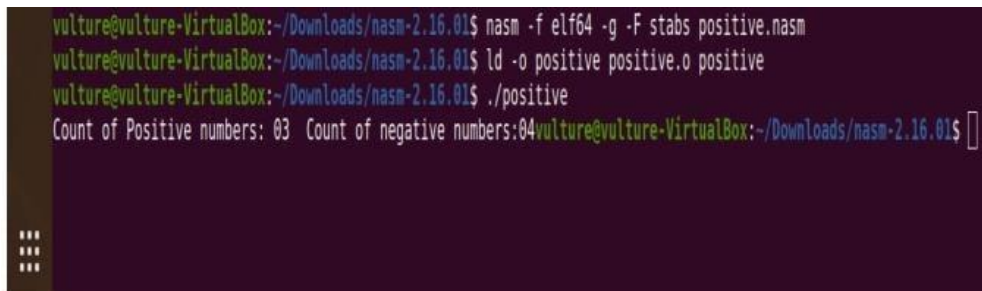
```
section .data
    msg1 db "Count of Positive numbers:" len1 equ $-msg1
    msg2 db "Count of negative numbers:" len2 equ $-msg2
    array db 10,12,-21,-12,-19,-34,41
%macro print 2
    mov rax,1
    mov rdi,1
    mov rsi,%1
    mov rdx,%2
    syscall
%endmacro
section .bss
    count resb 2
    pcount resb 2
    ncount resb 2
    totalcount resb 2
section .text
global _start
_start:
    mov byte[count],07
    mov byte[pcount],00
    mov byte[ncount],00 mov rsi,array Up: mov al,00
    add al,[rsi]
    js neg
    inc byte[pcount] jmp Down
neg:
    inc byte[ncount]
Down:
    add rsi,01
    dec byte[count] jnz Up
    mov bl,[pcount]
```

```

    mov dl,[ncount]
b1:
    print msg1,len1
    mov bh,[pcount] call disp
    print msg2,len2
    mov bh,[ncount]
    call disp
    mov rax,60
    mov rdi,00
    syscall
disp:
    mov byte[count],02
loop:
    rol bh,04
    mov al,bh
    AND al,0FH  cmp al,09
    jbe l1
    add al,07h
l1:add al,30h
    mov[totalcount],al
    print totalcount,02
    dec byte[count]
    jnz loop
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$

```