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**Assignment 5**

**Write X86/64 ALP to count number of positive and negative numbers from the array**

**Program-**

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,01 mov rdi,01 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:**

