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: