ML Assignment

Name: Jagruti Ravindra Patil

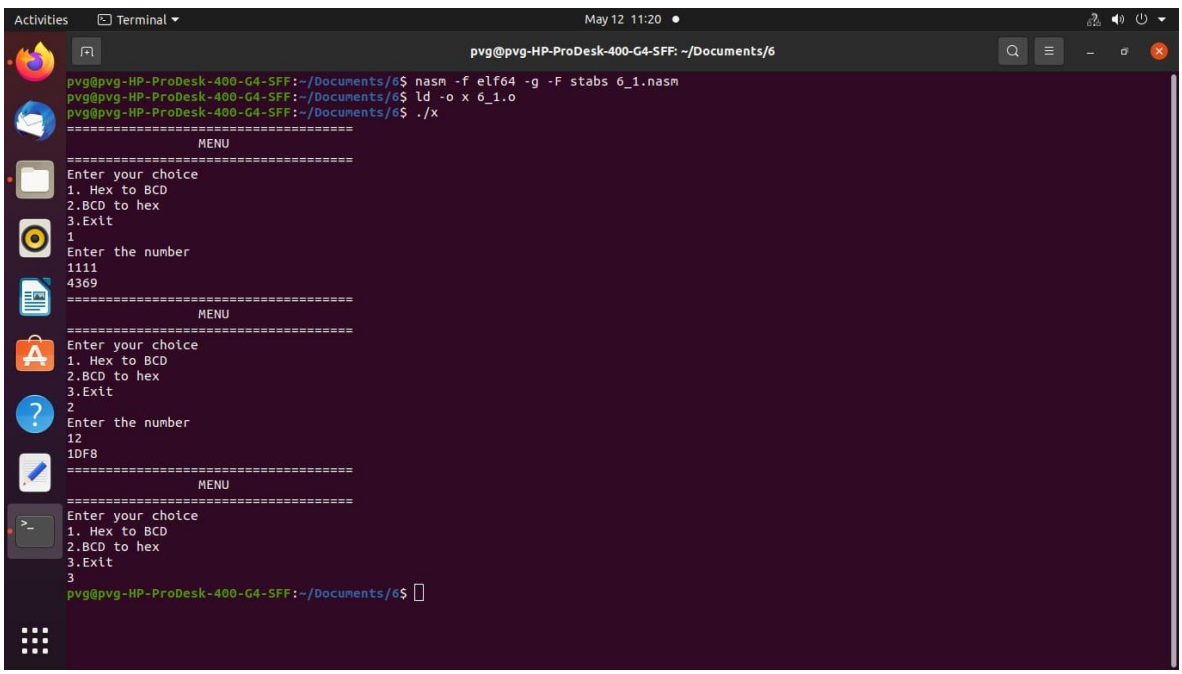
Roll No: 2089

Batch: S4 Comp

Assignment 6:

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: