SC165

Assignment No- 3 Write an X86/64 ALP to accept a string and to display its length.

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

section .data
msg1 db "Enter the string: ",10
len1 equ $-msg1
msg2 db "Length of string: ",10
len2 equ $-msg2

section .bss
name resb 50
result resb 16

section .text
global _start
_start:
write msg1,len1

mov rax,0
mov rdx,0
mov rsi,name
mov rdx,50
syscall

dec rax
call display

mov rax,60
mov rdi,0
syscall

display:
mov rbx,rax
mov cx,16
mov edi,result
```

```
up:
rol rbx,4
mov al,bl
and al,0fH
cmp al,09H
jg add_37
add al,30H
jmp skip

add_37:
add al,37H

skip:
mov[edi],al
inc edi
dec cx
jnz up
write result,16
ret
```