**Title:-** String length calculation

**Assignment Name:** - Write an X86/64 ALP to accept a string and to display its length.

; MPL code for length of the entered string

section .data

%macro print 2

mov rax,1

mov rdi,1

mov rsi,%1

mov rdx,%2

syscall

%endmacro

%macro read 2

mov rax,0

mov rdi,0

mov rsi,%1

mov rdx,%2

syscall

%endmacro

name db 10,"Enter the string needed : ",10

l1 equ $-name

display db 10,"The entered string from user is : ",10

l2 equ $-display

length db 10,"The length of the entered string is : ",10

l3 equ $-length

newline db 10

section .bss

buffer resb 50

size equ $-buffer

count resd 1

dispnum resb 02

section .txt

global \_start:

\_start:

print name,l1

read buffer,size

mov [count],rax

dec rax

print display,l2

print buffer,[count]

call disp

Exit:

mov rax,60

mov rbx,0

Termination:

syscall

print newline,1

disp:

mov rsi,dispnum+15

mov rax,[count]

mov rcx,16

dec rax

up1:

mov rdx,0

mov rbx,10

div rbx

add dl,30h

mov [rsi],dl

dec rsi

loop up1

print length,l3

print dispnum+14,02

ret

OUTPUT:-

(base) admin1@410-7:~/F21111036$ nasm -f elf64 MPL4NEW.asm

(base) admin1@410-7:~/F21111036$ ld -o a MPL4NEW.o

(base) admin1@410-7:~/F21111036$ ./a

Enter the string needed :

ayush\_mpl4code

The entered string from user is :

ayush\_mpl4code

The length of the entered string is :

14(base)