

Practical2

section .data

```
msg db "ALP to display the length of a string entered by the user",10
msg_len equ $ - msg
```

```
msg1 db 10, "String entered by the user is : ",10
msg1_len equ $ - msg1
```

```
msgop db 10, 10, "Length of the string is : ", 10
msgop_len equ $ - msgop
```

section .bss

```
string resb 50
result resb 50
```

; Rename macro to avoid conflict with syscall name

```
%macro writemsg 2
```

```
    mov rax, 1
    mov rdi, 1
    mov rsi, %1
    mov rdx, %2
    syscall
```

```
%endmacro
```

section .text

```
global _start
```

```
_start:
```

```
    writemsg msg, msg_len
    writemsg msg1, msg1_len
```

```
    mov rax, 0      ; syscall: read
    mov rdi, 0
    mov rsi, string
    mov rdx, 50
    syscall
```

```
    dec rax          ; adjust length to exclude newline
    call disp
```

```
    mov rax, 60      ; syscall: exit
    mov rdi, 0
    syscall
```

```
disp:
```

```
    mov rbx, rax
    mov rdi, result
    mov cx, 16
```

```

up1:
    rol rbx, 4
    mov al, bl
    and al, 0Fh
    cmp al, 9
    jg add_37
    add al, 30h
    jmp skip
add_37:
    add al, 37h
skip:
    mov [rdi], al
    inc rdi
    dec cx
    jnz up1

    writemsg string, 50
    writemsg msgop, msgop_len
    writemsg result, 16
    ret

```

output

```

rllab@fedora:/home/liveuser$ nasm -f elf64 prathamesh2.nasm
rllab@fedora:/home/liveuser$ ld -o prathamesh2 prathamesh2.o
rllab@fedora:/home/liveuser$ ./prathamesh2
ALP to display the length of a string entered by the user

String entered by the user is :
prathamesh
prathamesh

Length of the string is :
0000000000000000Arllab@fedora:/home/liveuser$ ./prathamesh2
ALP to display the length of a string entered by the user

String entered by the user is :
vijay
vijay

Length of the string is :
00000000000000005rllab@fedora:/home/liveuser$ ./prathamesh2
ALP to display the length of a string entered by the user

String entered by the user is :
tikle
tikle

Length of the string is :
00000000000000005rllab@fedora:/home/liveuser$ █

```