```
%macro scall 4 ;macro declaration with 4 parameters
1
 2
        mov eax, %1 ;1st parameter has been moved to eax
        mov ebx, %2 ;2nd parameter has been moved to ebx
 3
 4
        mov ecx, %3 ;3rd parameter has been moved to ecx
        mov edx, %4 ;4th parameter has been moved to edx
 5
                    ; Call the Kernel
 G
7
    %endmacro
                    ; end of macro
 8
    section .data ; .data begins here
 9
        m1 db 10d,13d,"Enter a string: " ;m1 variable initialized with string
10
                                            ;11 stores length of string m1
        11 equ $-m1
11
12
        m2 db 10d,13d, "Entered String: " ;m2 variable initialized with string
13
        12 equ $-m2
                                            ;12 stores length of string m2
14
15
        m3 db 10d,13d,"Length: "
                                            ;m3 variable initialized with string
1G
        13 equ $-m3
                                            ;13 stores length of string m3
17
18
                  ;.bss begins here
19
    section .bss
        buffer resb 50
                                ;buffer array of size 50
20
        size equ $-buffer
                                ; size variable to have input
21
        count resd 1
                                ; to store size of buffer
22
        dispnum resb 8
                                ;to display 8 digit length
23
24
    section .text ;.text begins here
25
        global start
                               ;moving to start label
2G
27
                                ; start label
    start:
28
                                ; macro call to display m1
        scall 4,1,m1,11
29
        scall 3,0,buffer, size ; macro call to input buffer
30
        mov [count],eax
                                ; length of buffer gets stored in count
31
        scall 4,1,m2,12
                                ; macro call to display m2
32
        scall 4,1,buffer,[count] ; macro call to display buffer
33
                                ;macro call to display m3
        scall 4,1,m3,13
34
35
                                ;esi points to 8th location of dispnum
        mov esi, dispnum+7
3G
        mov eax,[count]
                                ; eax now stores value of count
37
                               ;ecx gets initialized with 8
        mov ecx, 8
38
        dec eax
                                ; decrement the value of eax
39
40
    UP1:
                                 ;UP1 label
41
                               ;edx gets initialized with 0
        mov edx, 0
42
                               ; ebx gets initialized with 10
        mov ebx, 10
43
        div ebx
                               ; divide the contents of eax by ebx
44
        add dl,30h
                               ; add 30 to the remainder
45
                               ;dl content gets copied at esi
        mov [esi],dl
4G
        dec esi
                               ; decrement esi
47
        loop UP1
                               ; jump to UP1 till ecx becomes 0
48
49
```

```
scall 4,1,dispnum,8 ;macro call to display dispnum array

mov eax,1 ;sys_exit function |
mov ebx,0 ;Successful Termination |
int 80h ;Call the Kernel |
```

## **Output:**