section .data

m2 db 10,10,'Enter the string:' ;enter message

m2\_len equ $-m2 ;calculate length of m2 message

m3 db 'Length of the string is:' ;length

m3\_len equ $-m3

section .bss

srcstr resb 20 ; resb:reserve a byte

count resb 1

dispbuff resb 2

%macro disp 2 ; 2 means number of parameter

mov eax,4 ;4=Write System call

mov ebx,1 ;file descriptor:1:Stdout

mov ecx,%1 ;%1 means parameter

mov edx,%2 ;%2 Means parameter

int 80h ;call to kernel and tell about write system call and descriptor

%endmacro

%macro acceptstr 1

mov eax,03 ;3=read system call

mov ebx,0 ;file descriptor:0:stdin

mov ecx,%1

int 80h ;store user string in al register call to kernel and tell about read system call %endmacro

section .text

global \_start

\_start:

disp m2,m2\_len ;call disp macro

acceptstr srcstr ;call acceptstr

dec al ;decrement pointer i.e. pointer goes to first location

mov [count],al ;store al contents in count location

disp m3,m3\_len ;call disp macro

mov bl,[count] ;

call display

mov eax,01 //start execution after **ret** instruction

int 80h

display:

mov cl,2 ; 2 means length of output number

mov edi,dispbuff

d1:

rol bl,4 ;rotated by 4 bits

mov al,bl ;move content from bl to al

and al,0Fh ;anding with al contents and 0Fh:0000 1111 h

cmp al,09 ;compare al contents with 09

jbe d2 ; jump below equal to d2

add al,07 ;otherwise add al and 07

d2:

add al,30h ;add al and 30h,30h=48 decimal=0

mov [edi],al

inc edi ;edi is incremented

dec cl ;cl is 2 ,then,1 then 0

jnz d1

disp dispbuff,2

ret ;return to after display call label