Name=thanjavuru Sumanth class=sy-6 roll no.=58

Code

global \_start

section .data

msg1 db "Enter the 1st Value: ",10

len1 equ $-msg1

msg2 db "Enter the 2nd Value: ",10

len2 equ $-msg2

msg3 db "The multiplication is: "

len3 equ $-msg3

newline db 10

section .bss

val1 resb 2

val2 resb 2

result resb 3 ; for up to 2 digits

section .text

\_start:

; print msg1

mov eax,4

mov ebx,1

mov ecx,msg1

mov edx,len1

int 0x80

; read val1

mov eax,3

mov ebx,0

mov ecx,val1

mov edx,2

int 0x80

; print msg2

mov eax,4

mov ebx,1

mov ecx,msg2

mov edx,len2

int 0x80

; read val2

mov eax,3

mov ebx,0

mov ecx,val2

mov edx,2

int 0x80

; convert ascii -> number

mov al,[val1]

sub al,'0'

mov bl,[val2]

sub bl,'0'

; multiply

mul bl ; AX = AL \* BL

; adjust result using AAM (AH = tens, AL = ones)

aam

; convert to ascii

add ah,'0'

add al,'0'

; check if tens digit is zero

cmp ah,'0'

je only\_ones

; store both digits

mov [result],ah

mov [result+1],al

; print msg3

mov eax,4

mov ebx,1

mov ecx,msg3

mov edx,len3

int 0x80

; print 2-digit result

mov eax,4

mov ebx,1

mov ecx,result

mov edx,2

int 0x80

jmp done

only\_ones:

mov [result],al

; print msg3

mov eax,4

mov ebx,1

mov ecx,msg3

mov edx,len3

int 0x80

; print 1-digit result

mov eax,4

mov ebx,1

mov ecx,result

mov edx,1

int 0x80

done:

; print newline

mov eax,4

mov ebx,1

mov ecx,newline

mov edx,1

int 0x80

; exit

mov eax,1

xor ebx,ebx

int 0x80

output

