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Computer Architecture and Assembly Language Programming (CS401)

Question No: 1

Write an assembly language program to store your Roll Number(Number part only) and calculate their sum.

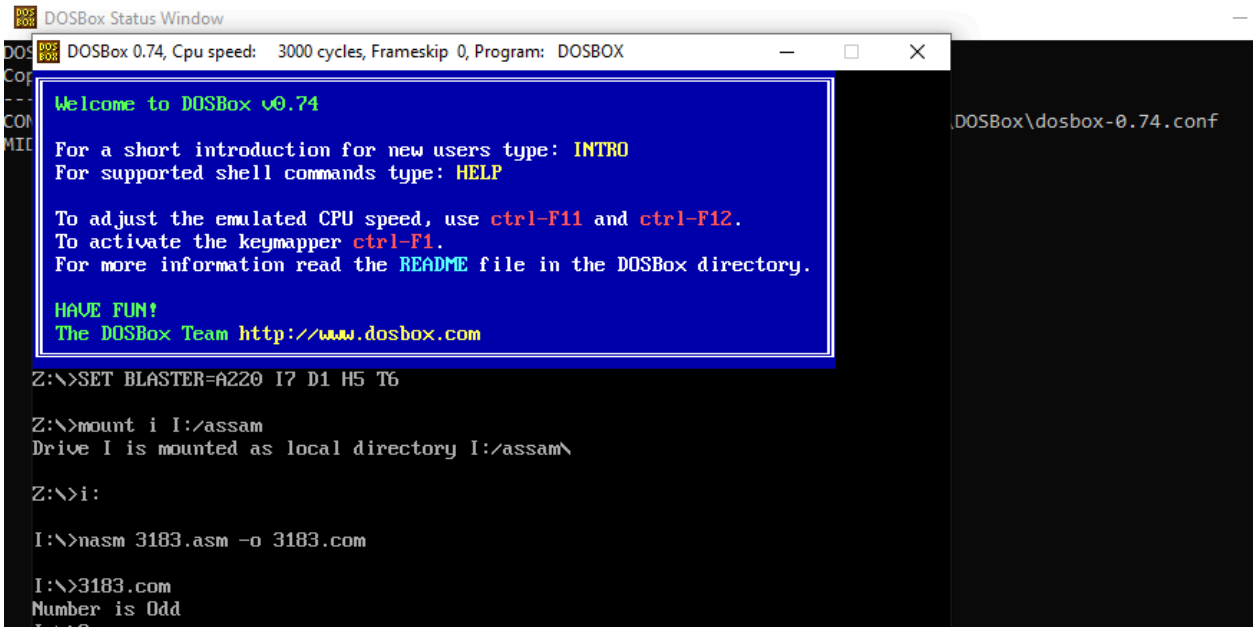
Solution:

VU MALIK

```
[org 0x0100]
jmp start
msg_even db 'Number is Even', '$'
msg_odd db 'Number is Odd', '$'
number: dw 1,9,0,2,0,3,1,8,3
start:
mov bx,0
mov cx,9
mov ax,0
loop1:
add ax,[number+bx]
add bx,2
sub cx,1
cmp cx,0
jnz loop1
mov bx,ax
and bx,1
cmp bx,0
```

```
jnz odd
even:
mov si,msg_even
mov dx,si
mov ah,09h
int 21h
jmp terminate
odd:
mov si,msg_odd
mov dx,si
mov ah,09h
int 21h
terminate:
mov ax,0x4c00
int 0x21
```

ScreenShot:



Question No: 2

Find the offset address where Physical address is 4A37Bh and the segment address is 40FFh

Solution:

Offset Address = physical address – segment address * 10h

Offset Address = 4A37Bh – 40FFh * 10h

Offset Address = 4A37Bh – 40FF0h

Offset Address = 93Bh