

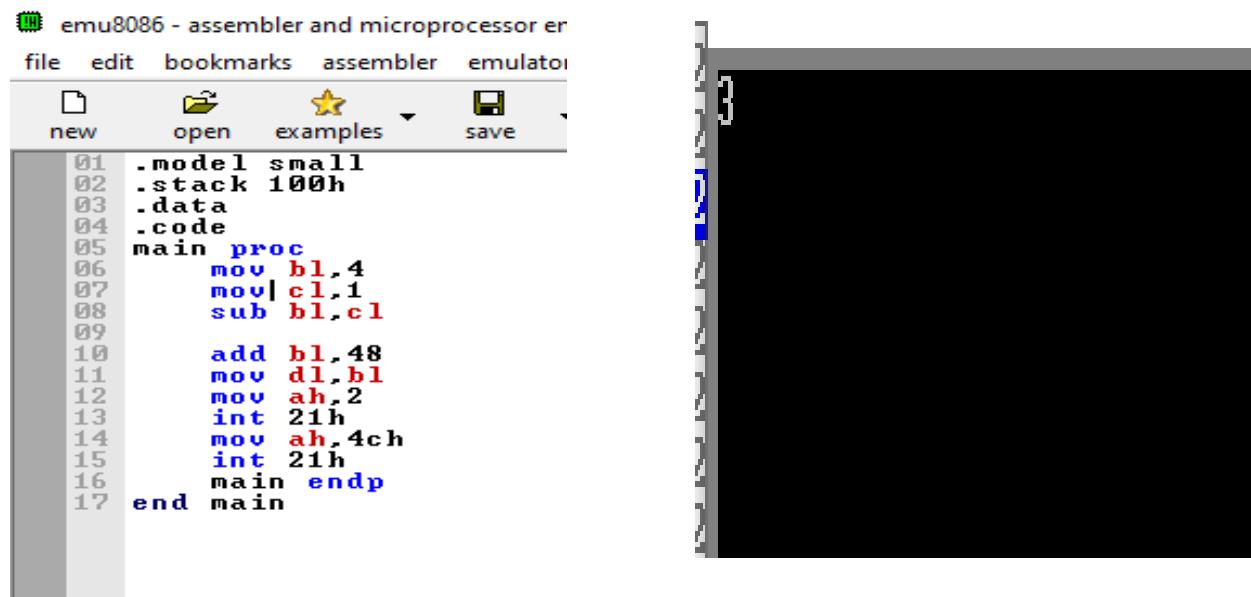
MISHAL ASIM (62516)

COAL AND ASSEMBLY LANGUAGE

LAB 05

QUESTION 1:

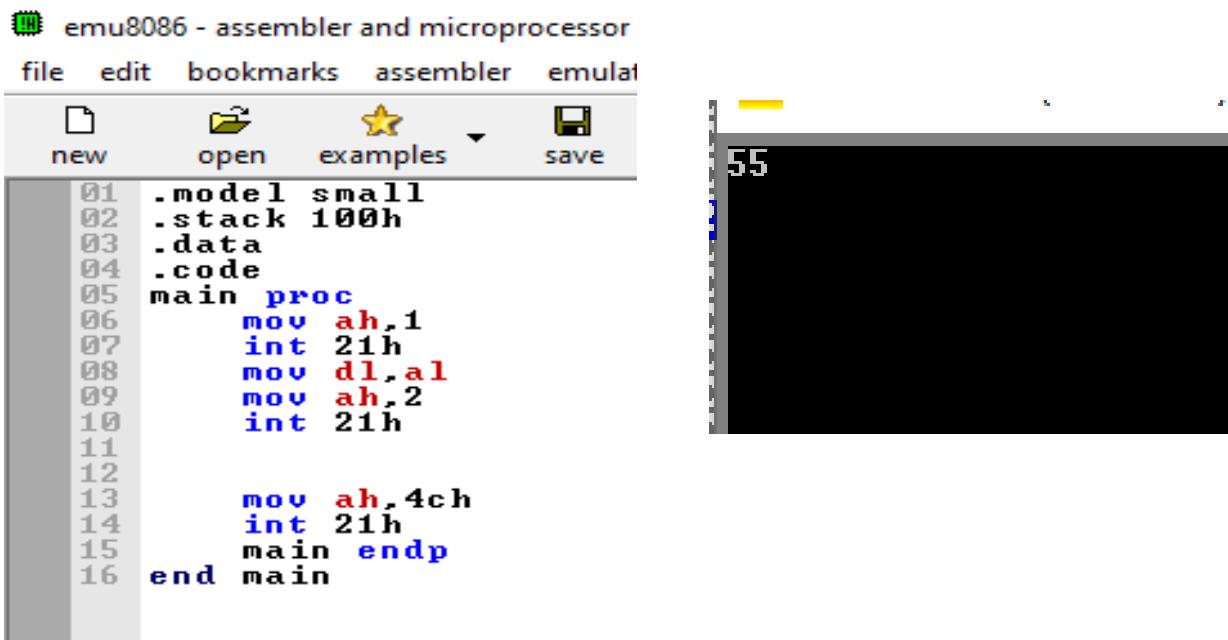
## PART 1



emu8086 - assembler and microprocessor editor

```
file edit bookmarks assembler emulator  
new open examples save  
01 .model small  
02 .stack 100h  
03 .data  
04 .code  
05 main proc  
06     mov bl,4  
07     mov cl,1  
08     sub bl,cl  
09  
10    add bl,48  
11    mov dl,bl  
12    mov ah,2  
13    int 21h  
14    mov ah,4ch  
15    int 21h  
16    main endp  
17 end main
```

## PART 2



emu8086 - assembler and microprocessor editor

```
file edit bookmarks assembler emulator  
new open examples save  
01 .model small  
02 .stack 100h  
03 .data  
04 .code  
05 main proc  
06     mov ah,1  
07     int 21h  
08     mov dl,al  
09     mov ah,2  
10     int 21h  
11  
12  
13     mov ah,4ch  
14     int 21h  
15     main endp  
16 end main
```

## PART 3

```

01 .model small
02 .stack 100h
03 .data
04 .code
05 main proc
06
07     mov ah,1
08     int 21h
09     mov bl,al
10
11     mov ah,1
12     int 21h
13
14     sub bl,al
15
16     add bl,48
17
18
19     mov dl,bl
20
21     mov ah,2
22     int 21h
23
24
25     mov ah,4ch
26     int 21h
27 main endp
28 end main

```

Stop emulator screen (F5)

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QUESTION 2:

emu8086 - assembler and microprocessor emulator 4.08

file edit bookmarks assembler emulator math ascii codes help

```

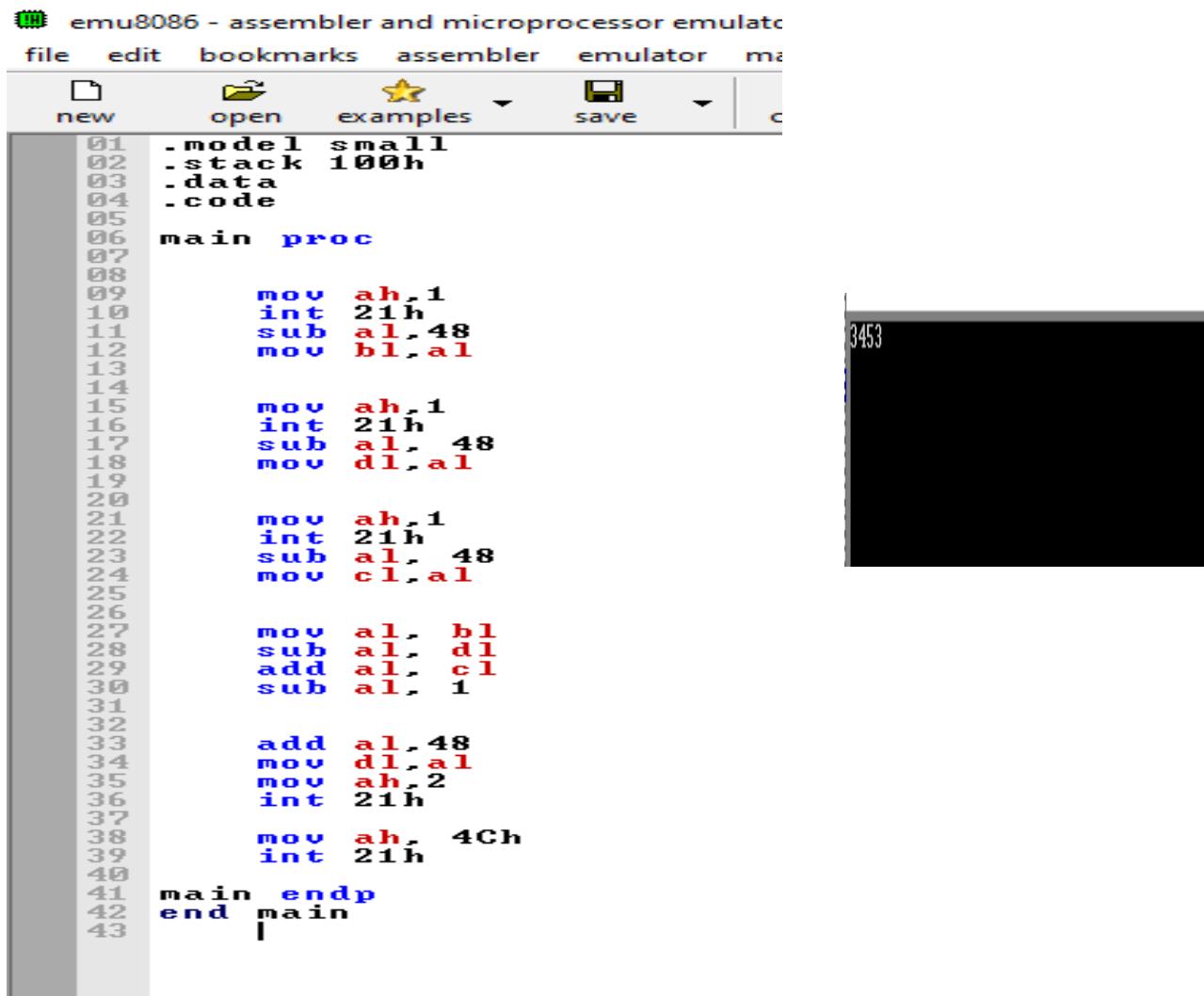
01 .model small
02 .stack 100h
03 .data
04 .code
05
06 main proc
07
08     mov ah,1
09     int 21h
10     sub al, 48 ;ASCII TO NUMBER|
11     mov bl,al
12
13     mov ah,1
14     int 21h
15     sub al, 48
16     mov cl,al
17
18     mov ah,1
19     int 21h
20     sub al, 48
21     mov dl,al
22
23     add bl,cl
24     add bl,48
25
26     mov dl,b1
27     mov ah,2
28     int 21h
29
30     mov ah,4ch
31     int 21h
32
33 main endp
34
35
36 end main
37
38

```

Stop emulator screen (F5)

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### QUESTION 3:



The screenshot shows the emu8086 assembler and microprocessor emulator interface. The assembly code is displayed in the main window, and the output window shows the result of the program execution.

```
01 .model small
02 .stack 100h
03 .data
04 .code
05
06 main proc
07
08     mov ah, 1
09     int 21h
10     sub al, 48
11     mov bl, al
12
13
14     mov ah, 1
15     int 21h
16     sub al, 48
17     mov dl, al
18
19
20     mov ah, 1
21     int 21h
22     sub al, 48
23     mov cl, al
24
25
26     mov al, bl
27     sub al, dl
28     add al, cl
29     sub al, 1
30
31
32     add al, 48
33     mov dl, al
34     mov ah, 2
35     int 21h
36
37     mov ah, 4Ch
38     int 21h
39
40 main endp
41 end main
```

The output window displays the value 3453, which is the ASCII representation of the character '3' followed by '4' and '5'.