



Shaheed Zulfikar Ali Bhutto Institute of Science & Technology

COMPUTER SCIENCE DEPARTMENT

Computer organization and Assembly language

Lab Task # 03

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Code # 01

```

01 .model small
02 .data
03     num1 db ?
04     num2 db ?
05     result db ?
06     msg1 db "Enter the first number: $"
07     msg2 db 10d, 0Dh, "Enter the second number: $"
08     resultMsg db 10d, 13d, "Sum: $"
09
10 .code
11     mov ax, 0data
12     mov ds, ax
13
14     mov ah, 09h
15     lea dx, msg1
16     int 21h
17
18     ; Read the first number
19     mov ah, 01h
20     int 21h
21     sub al, 48d
22     mov num1, al
23
24     ; Prompt the user for the second number
25     mov ah, 09h
26     lea dx, msg2
27     int 21h
28
29     ; Read the second number
30     mov ah, 01h
31     int 21h
32     sub al, 30h
33     mov num2, al
34
35     ; Calculate the sum
36     mov al, num1
37     add al, num2
38     mov result, al
39
40     ; Display the result
41     mov ah, 09h
42     lea dx, resultMsg
43     int 21h
44
45     mov dl, result
46     add dl, '0'
47     mov ah, 02h
48     int 21h
49
50     mov ah, 4Ch
51     int 21h

```

Output

```

0
mov ax, @data
mov ds, ax

mov ah, 09h
lea dx, msg1
int 21h

; Read the first number
mov ah, 01h
int 21h
sub al, 48d
mov num1, al

; Prompt the user for the second number
mov ah, 09h
lea dx, msg2
int 21h

; Read the second number
mov ah, 01h
int 21h
sub al, 30h
mov num2, al

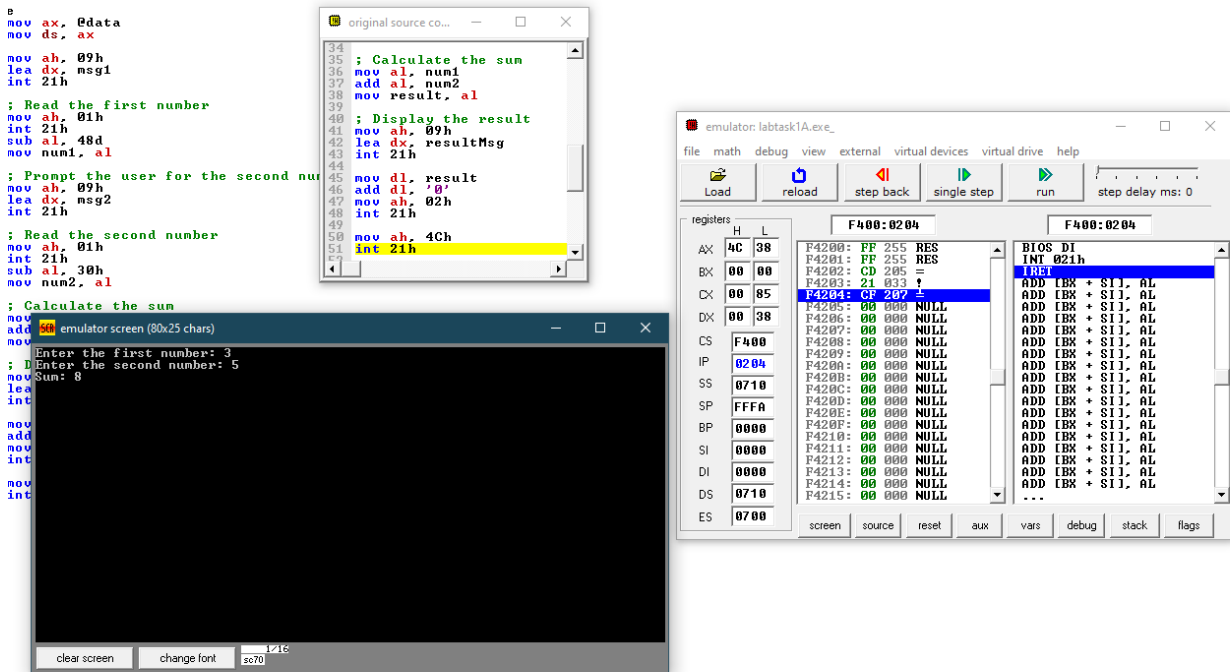
; Calculate the sum
mov al, num1
add al, num2
mov result, al

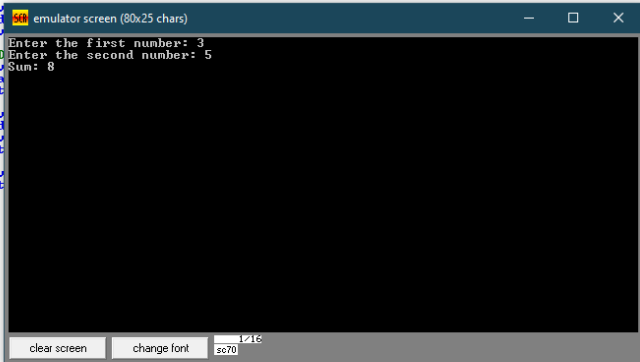
; Display the result
mov ah, 09h
lea dx, resultMsg
int 21h

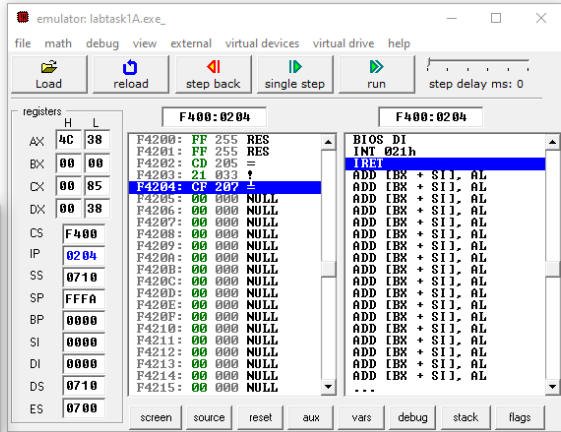
mov al, result
add al, '0'
mov ah, 02h
int 21h

mov ah, 4Ch
int 21h

```





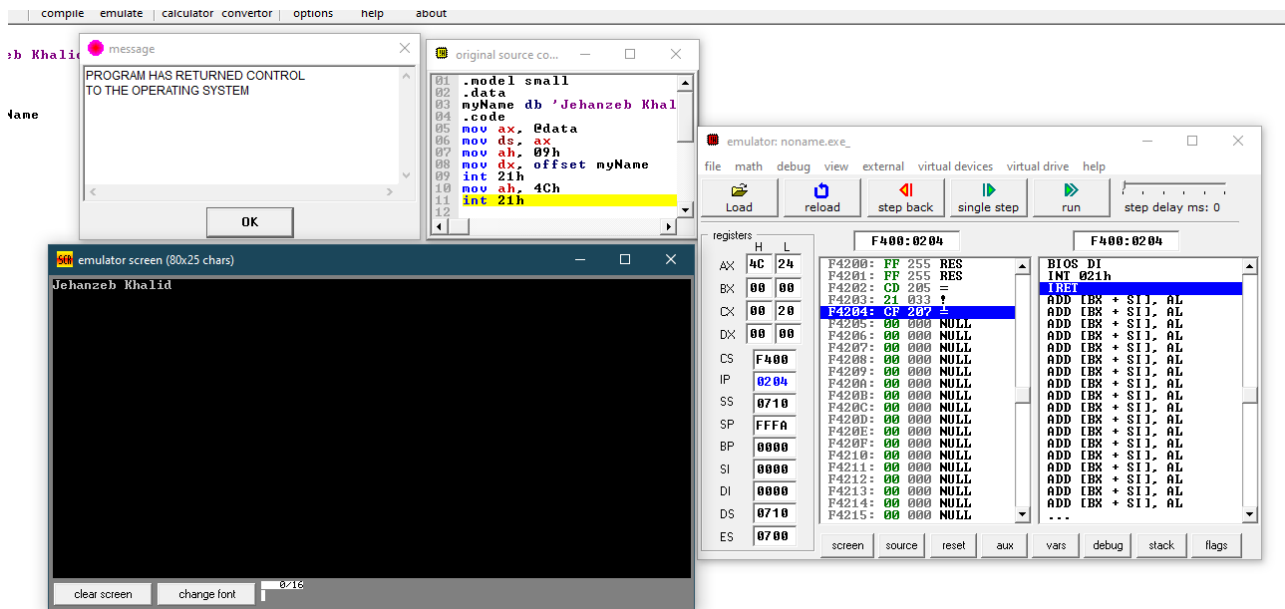
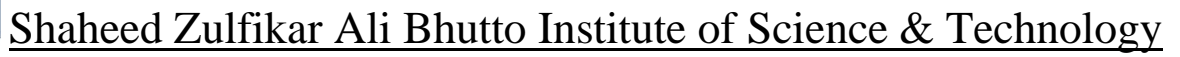


Code #02

```

1 .model small
2 .data
3     myName db 'Jehanzeb Khalid$'
4 .code
5     mov ax, @data
6     mov ds, ax
7     mov ah, 09h
8     mov dx, offset myName
9     int 21h
10    mov ah, 4Ch
11    int 21h
12

```



Code #03

```

1  .model small
2  .data
3      name1 db 'J', 0
4      name2 db 'e', 0
5      name3 db 'h', 0
6      name4 db 'a', 0
7      name5 db 'n', 0
8      name6 db 'z', 0
9      name7 db 'e', 0
10     name8 db 'b', 0
11     name9 db ' ', 0
12     name10 db 'K', 0
13     name11 db 'h', 0
14     name12 db 'a', 0
15     name13 db 'l', 0
16     name14 db 'i', 0
17     name15 db 'd', 0
18
19 .code
20 main:
21     mov ax, @data
22     mov ds, ax
23
24     mov ah, 02h
25
26     mov dl, name1
27     int 21h
28
29     mov dl, name2
30     int 21h
31
32     mov dl, name3
33     int 21h
34
35     mov dl, name4
36     int 21h
37
38     mov dl, name5
39     int 21h
40
41     mov dl, name6
42     int 21h
43
44     mov dl, name7
45     int 21h
46
47     mov dl, name8
48     int 21h
49
50     mov dl, name9
51     int 21h
52
53     mov dl, name10
54     int 21h
55
56     mov dl, name11
57     int 21h
58
59     mov dl, name12
60     int 21h
61
62     mov dl, name13
63     int 21h
64
65     mov dl, name14
66     int 21h
67
68     mov dl, name15
69     int 21h
70
71     mov ah, 4Ch
72     int 21h
73

```

OUTPUT

