COMPUTER SCIENCE DEPARTMENT

Computer organization and Assembly language

Lab Task # 03

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Code # 01

```
ew    open   examples    save   |  compile  emulate | calculator convertor | op
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, @data
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
```
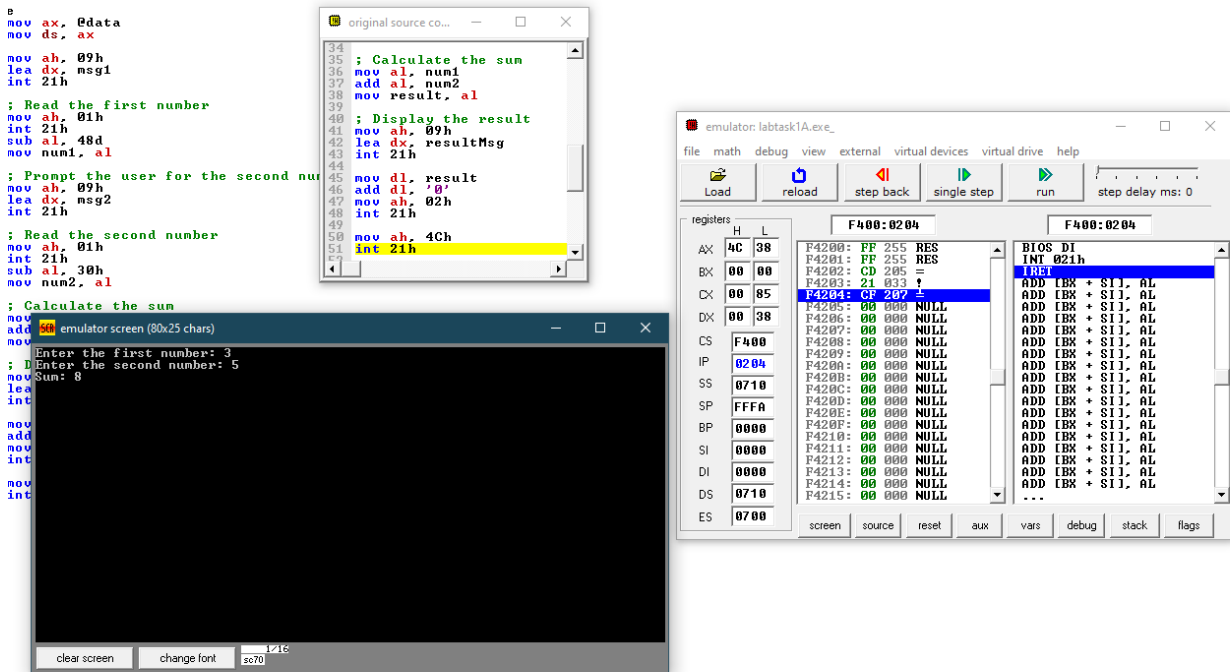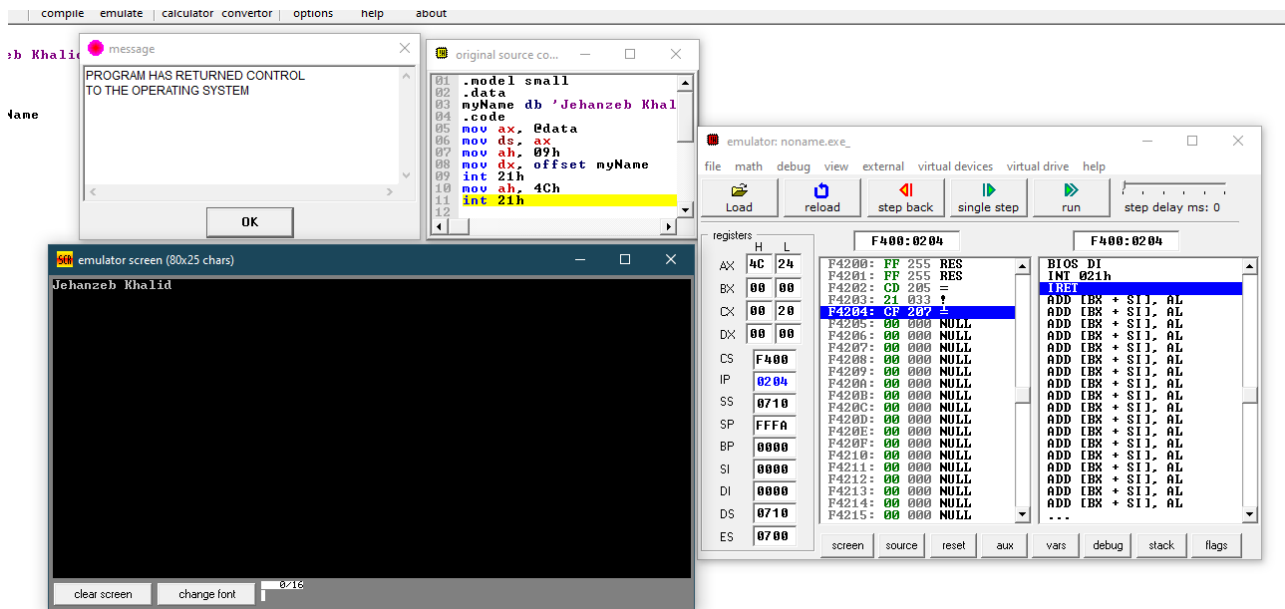
Output
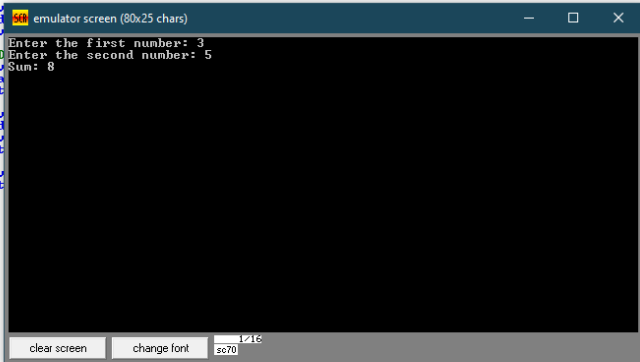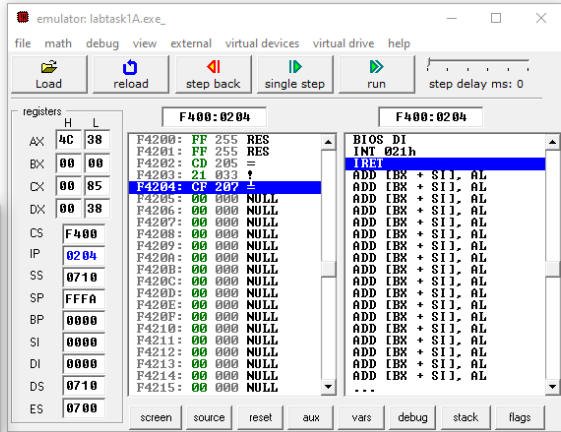
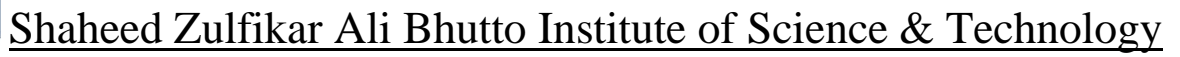## Code #02


```
.model small
.data
    myName db 'Jehanzeb Khalid$'
.code
    mov ax, @data
    mov ds, ax
    mov ah, 09h
    mov dx, offset myName
    int 21h
mov ah, 4Ch
int 21h
```

Output

Code #03

| open | examples | save | compile | emu |

```
.model small
.data
    name1 db 'J', 0
    name2 db 'e', 0
    name3 db 'h', 0
    name4 db 'a', 0
    name5 db 'n', 0
    name6 db 'z', 0
    name7 db 'e', 0
    name8 db 'b', 0
    name9 db ' ', 0
    name10 db 'K', 0
    name11 db 'h', 0
    name12 db 'a', 0
    name13 db 'l', 0
    name14 db 'i', 0
    name15 db 'd', 0

.code
main:
    mov ax, @data
    mov ds, ax

    mov ah, 02h

    mov dl, name1
    int 21h

    mov dl, name2
    int 21h

    mov dl, name3
    int 21h

    mov dl, name4
    int 21h

    mov dl, name5
    int 21h

    mov dl, name6
    int 21h

    mov dl, name7
    int 21h

    mov dl, name8
    int 21h

    mov dl, name9
    int 21h

    mov dl, name10
    int 21h

    mov dl, name11
    int 21h

    mov dl, name12
    int 21h

    mov dl, name13
    int 21h

    mov dl, name14
    int 21h

    mov dl, name15
    int 21h

    mov ah, 4Ch
    int 21h
```