

ASSIGNMENT 02

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ASIB HASAN

Lecturer

1. Write a program to display a "?", read two decimal digits whose sum is less than 10, display them and their sum on the next line, with an appropriate message.

Sample Execution:

?27

The Sum of 2 and 7 is 9

Solution:

```
.MODEL SMALL
```

```
.STACK 100H
```

```
.DATA
```

```
STR1 DB 0AH,0DH,'THE SUM OF '
```

```
FIRSTNUM DB ?
```

```
STR2 DB ' AND '
```

```
SECONDNUM DB ?
```

```
STR3 DB ' IS '
```

```
ANS DB ?
```

STR4 DB ' \$'

.CODE

MAIN PROC

MOV AX,@DATA

MOV DS,AX

MOV AH,2

MOV DL,3FH

INT 21H

MOV AH,1

INT 21H

MOV BL,AL

MOV FIRSTNUM,AL

INT 21H

MOV SECONDNUM,AL

ADD BL,AL

SUB BL,30H

MOV ANS,BL

MOV AH,9

LEA DX,STR1 ;VARIABLE PRINTING FIRST TO LAST

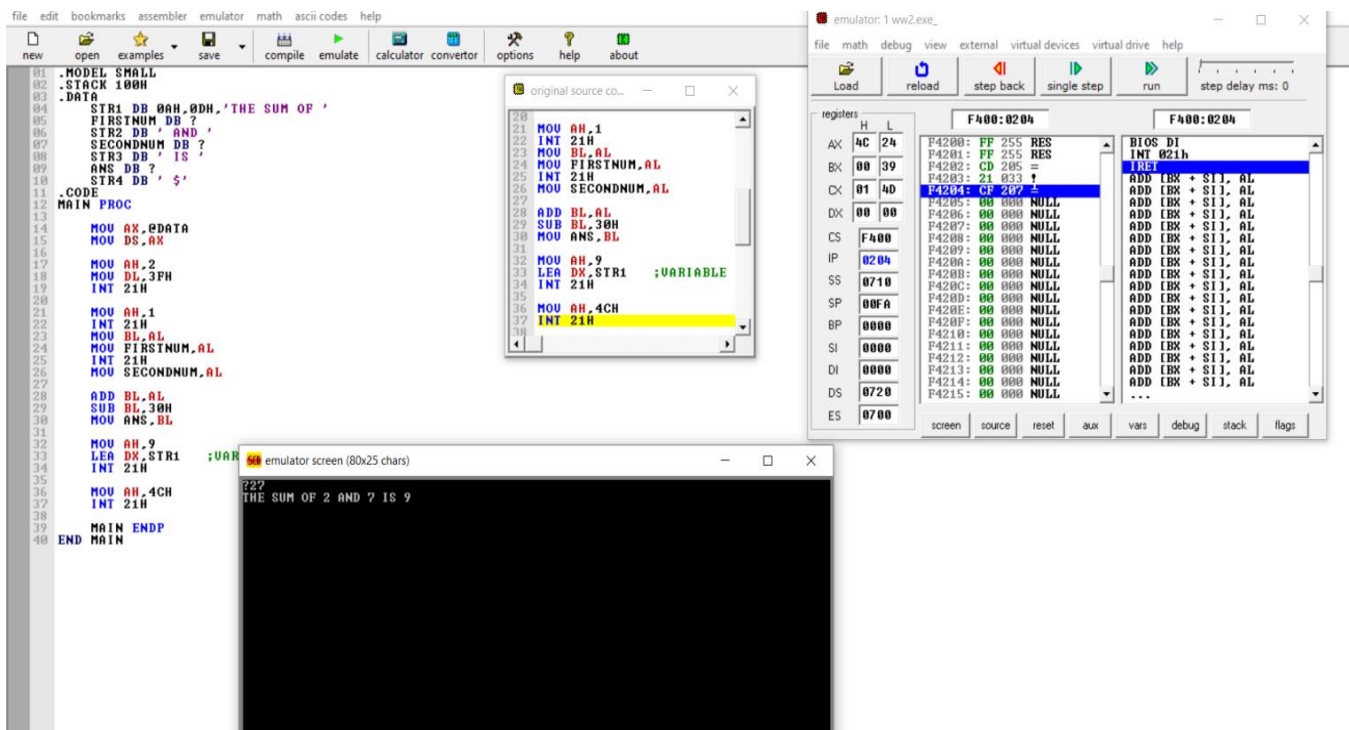
INT 21H

MOV AH,4CH

INT 21H

MAIN ENDP

END MAIN



2. Write a program to display a 10*10 solid box of asterisks.

Hint: Declare a string in the data segment that specifies the box, and display it with INT 21h, function 9h.

Solution:

```
.MODEL SMALL

.STACK 100H

.DATA

    SQUARE DB \'*****\'',0DH,0AH,\'$\''

.CODE

MAIN PROC

    MOV AX, @DATA          ; initialize DS

    MOV DS, AX

    LEA DX, SQUARE         ; load the string

    MOV AH, 9

    INT 21H

    INT 21H                ; display the string 10 times

    INT 21H

    INT 21H

    INT 21H

    INT 21H

    INT 21H

    INT 21H

    INT 21H
```

INT 21H

MOV AH, 4CH ; return control to DOS

INT 21H

MAIN ENDP

END MAIN

