Name :-Sagar Singh **PRN NO.:-** 2020033800104487

ASSIGNMENT :- 1

1. Write a program to perform addition of two 8-bit numbers.

➔ org 100h

a dw 09H

b dw 09H

c dw ?

MOV BX,a

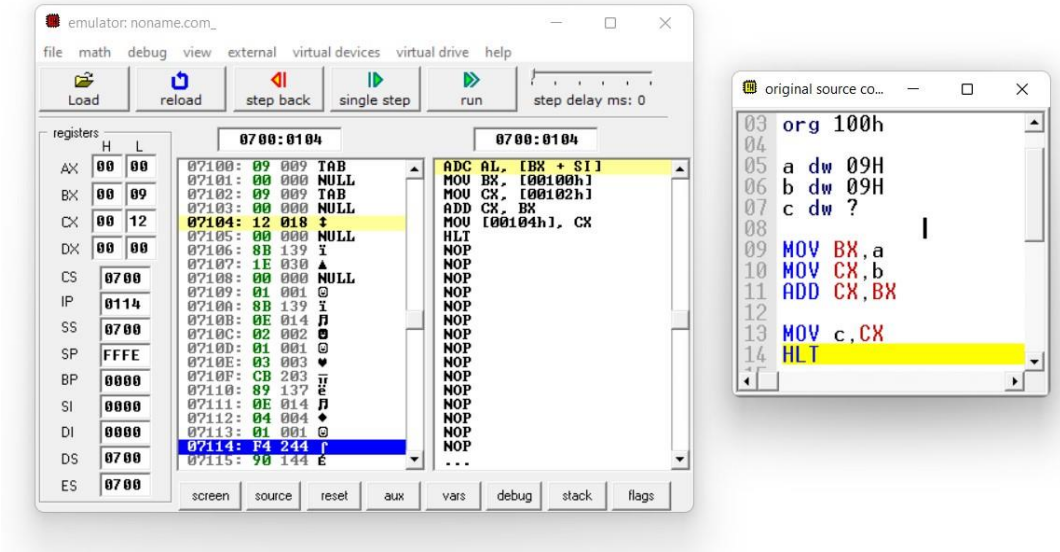
MOV CX,b

ADD CX,BX

MOV c,CX

HLT

OUTPUT:-



2. Write a program to perform subtraction of two 8-bit numbers.

Name :-Sagar Singh **PRN NO.:-** 2020033800104487

➔ org 100H

MOV AX,09H

MOV BX,06H

CMP BX,AX

JNC LOOP1

SUB BX,AX

NEG BX

HLT

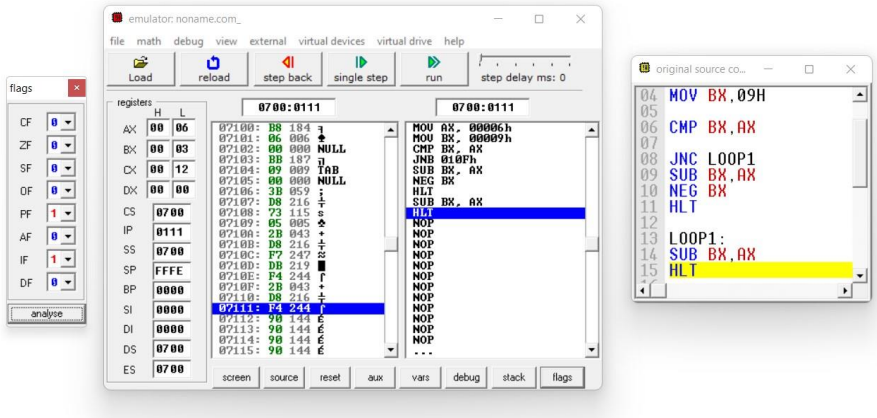
LOOP1:

SUB BX,AX

HLT

OUTPUT:-

- For 09H – 06H answer store in BX = 03H and carry bit set to 0 as does not have borrow.



- For 06H – 09H answer store in BX = 03H and carry bit set to 1 as have borrow.

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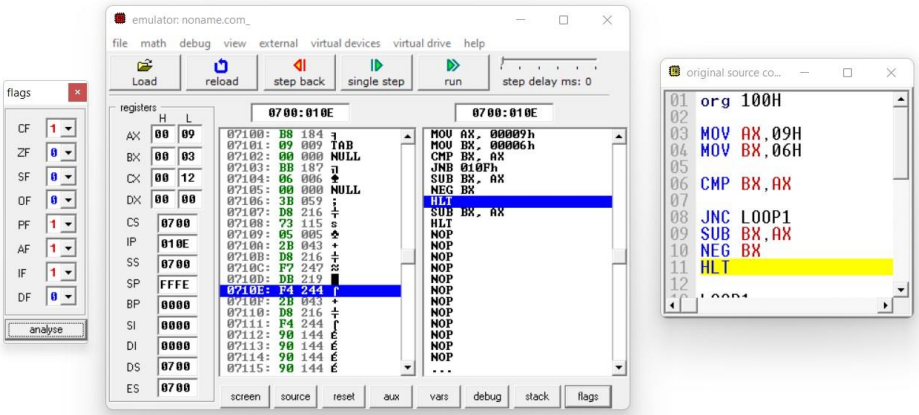


3. Write a program to perform multiplication of two 8-bit numbers.

➔ org 100H

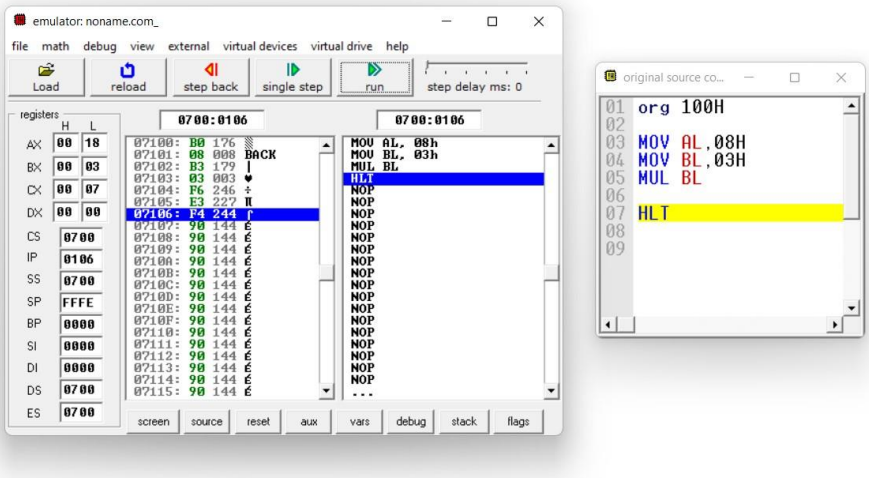
MOV AL,08H

MOV BL,03H

MUL BL

HLT

OUTPUT:-



4. Write a program to perform division of two 8-bit numbers.

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➔ org 100H

MOV AL,07H

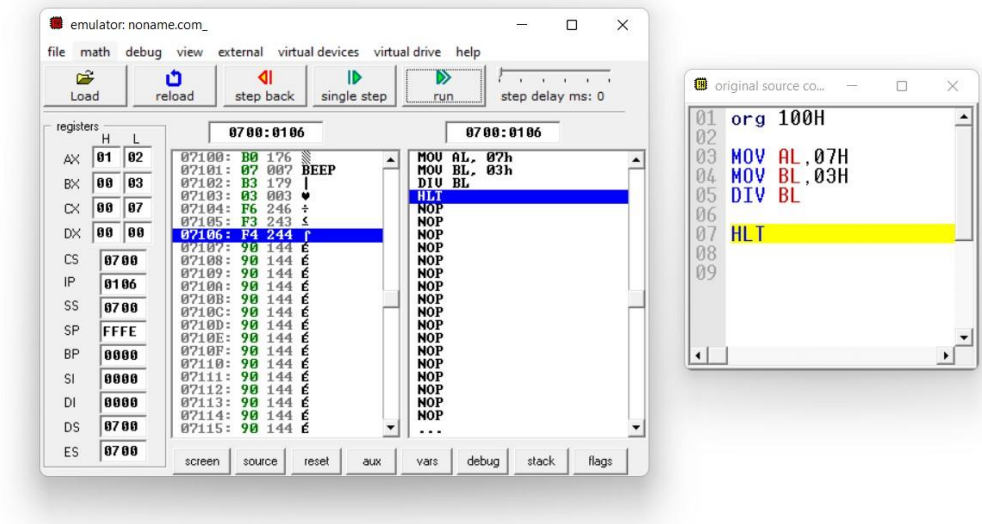
MOV BL,03H

DIV BL

HLT

OUTPUT:-

- For division quotient store at AX-L and reminder store at AX-H.



5. Write a program to interchange values of two variables.

➔ org 100H

MOV AL,08H

MOV BL,03H

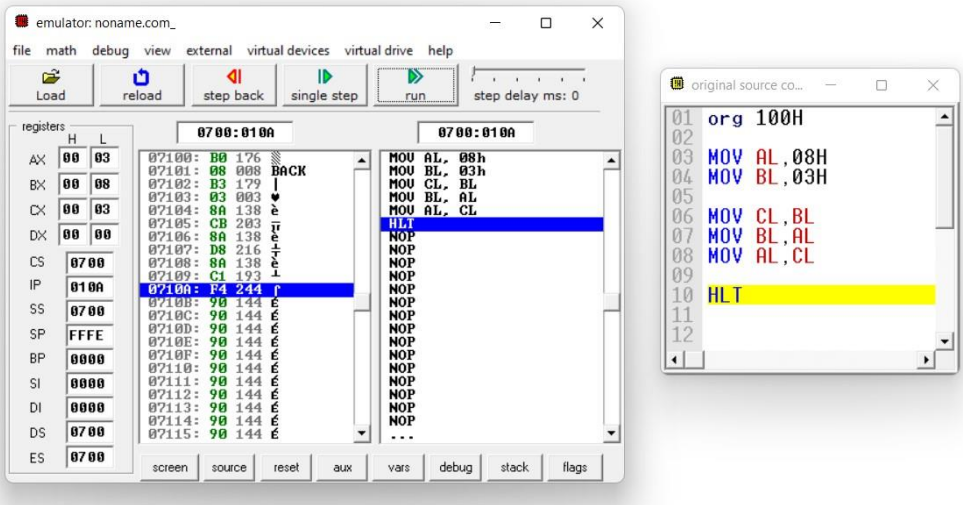
MOV CL,BL

MOV BL,AL MOV

AL,CL

HLT

OUTPUT:-



6. Write a program to find maximum number from given array of 16-bit numbers.

➔ org 100H

MOV SI,00100H

MOV CX,00009H

MOV AL,[SI]

INC SI

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```
LABEL1:

CMP [SI],AL

JC LABEL2

MOV AL,[SI]

LABEL2:

INC SI

DEC CX

JNZ LABEL1

HLT
```

OUTPUT:-