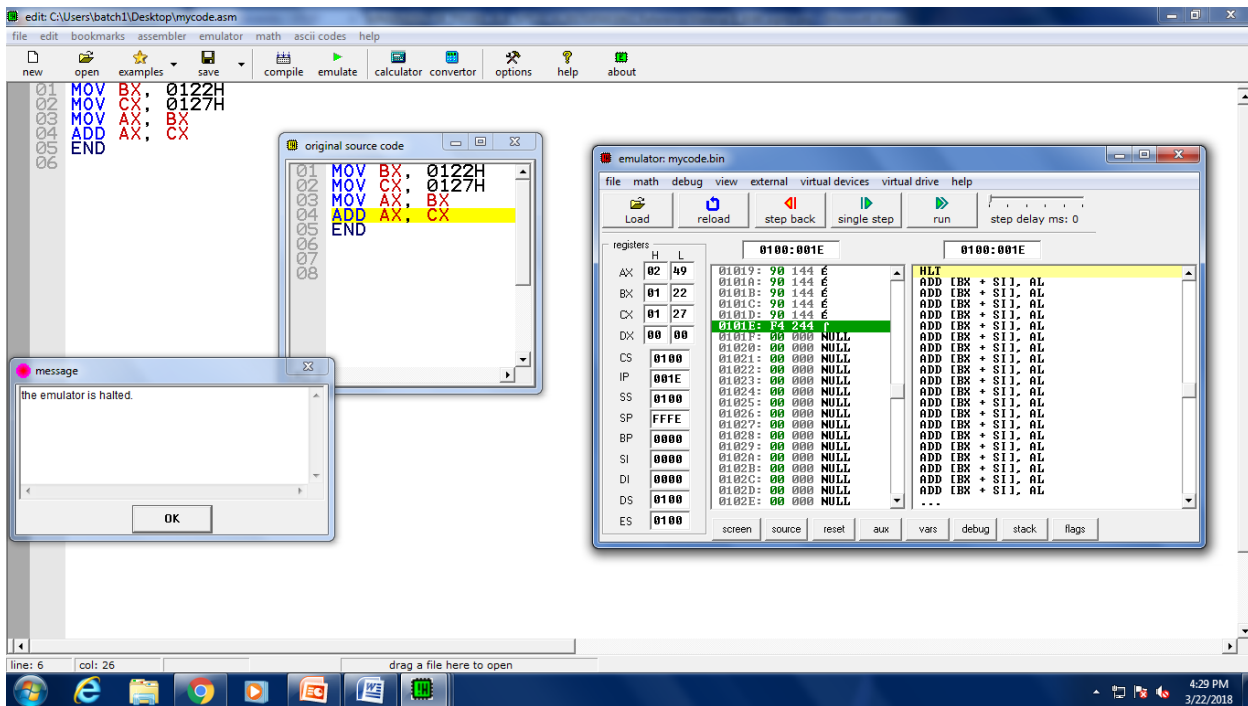


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17BIT0028

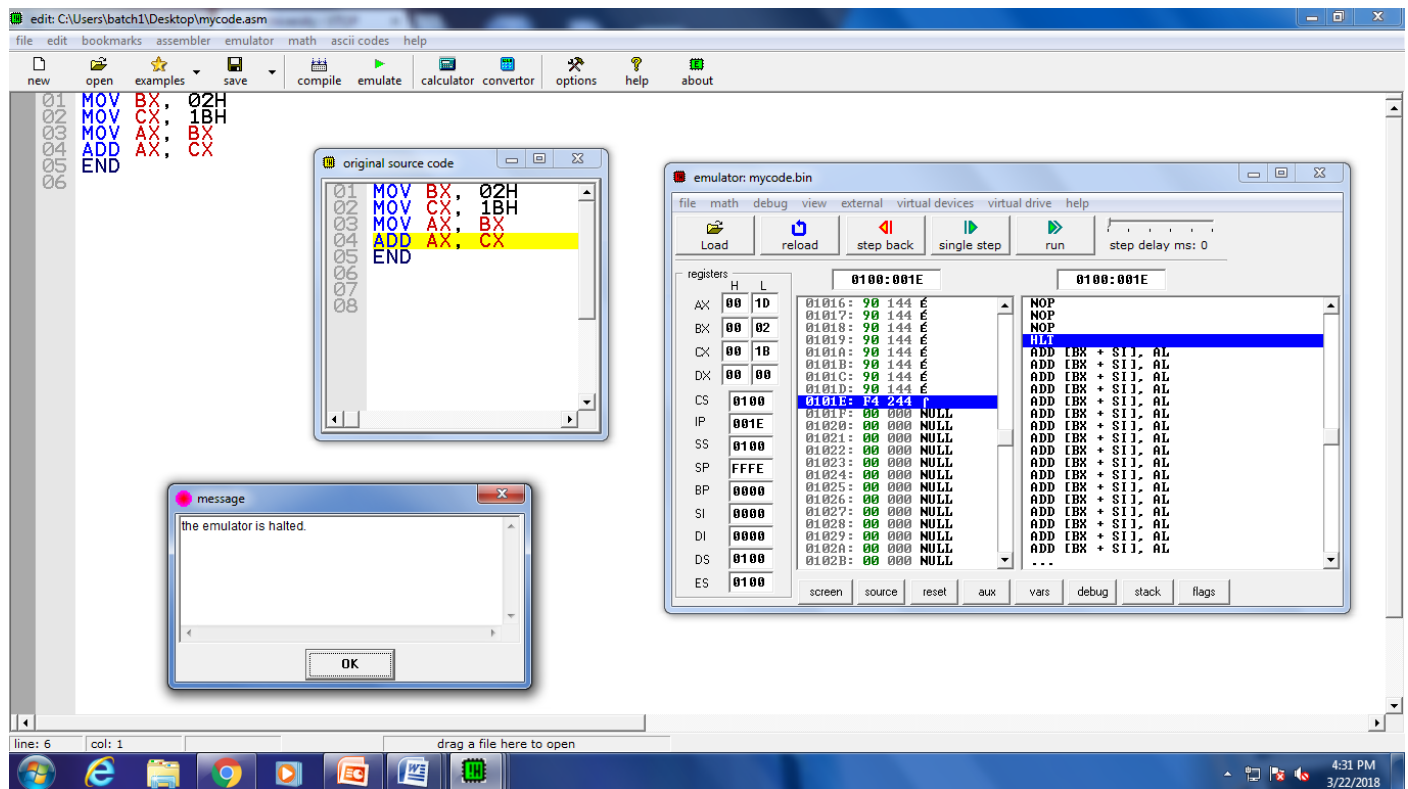
1. Write an ALP for adding two 16 bit numbers 0122H, 0127H stored in registers B and C respectively.

```
MOV BX, 0122H
MOV CX, 0127H
MOV AX, BX
ADD AX, CX
END
```



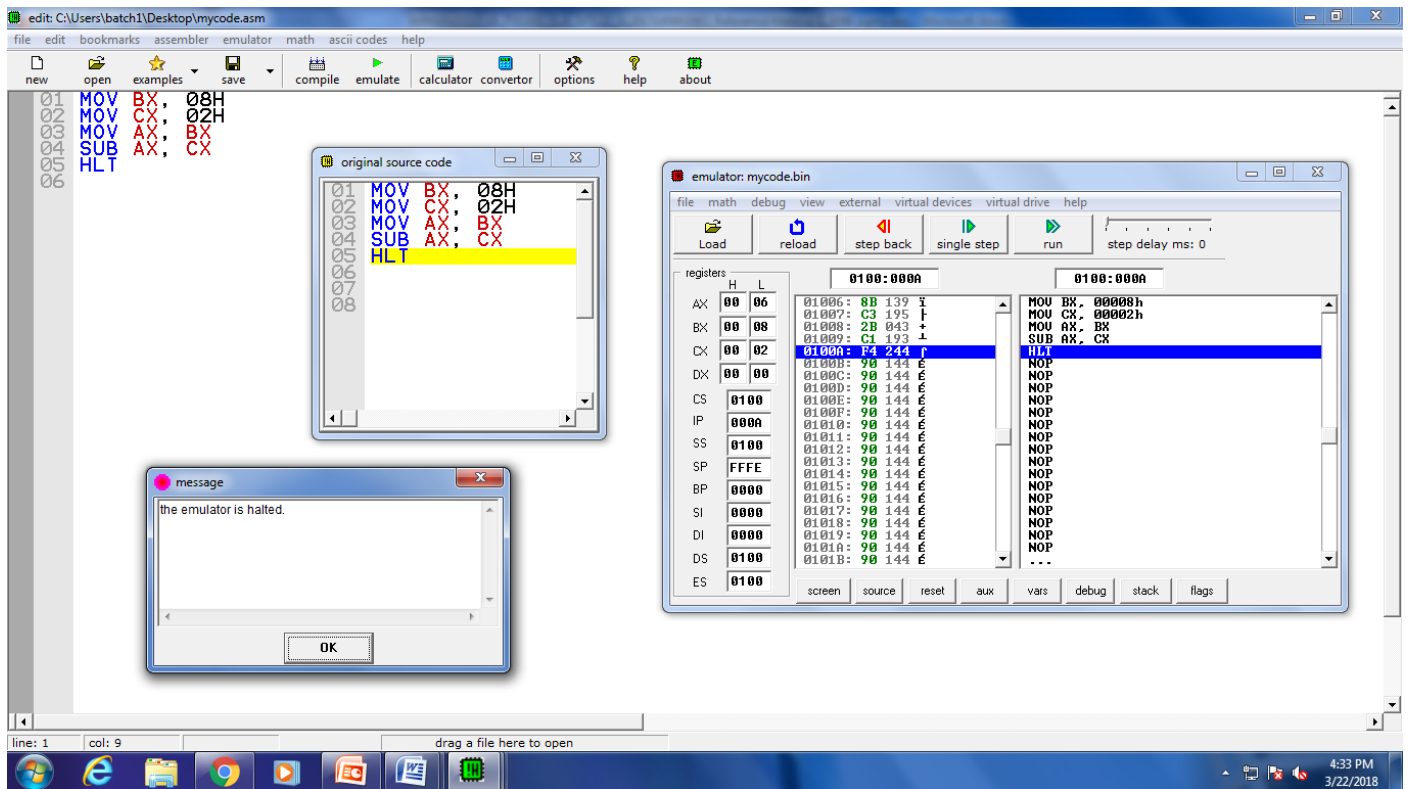
2. Write an ALP for adding two 8 bit numbers 02H, 1BH stored in registers B and C.

```
MOV BX, 02H
MOV CX, 1BH
MOV AX, BX
ADD AX, CX
END
```



3. Write an ALP for subtracting two 8 bit numbers stored in registers

```
MOV BX,08H
MOV CX, 02H
MOV AX, BX
SUB AX, CX
HLT
```



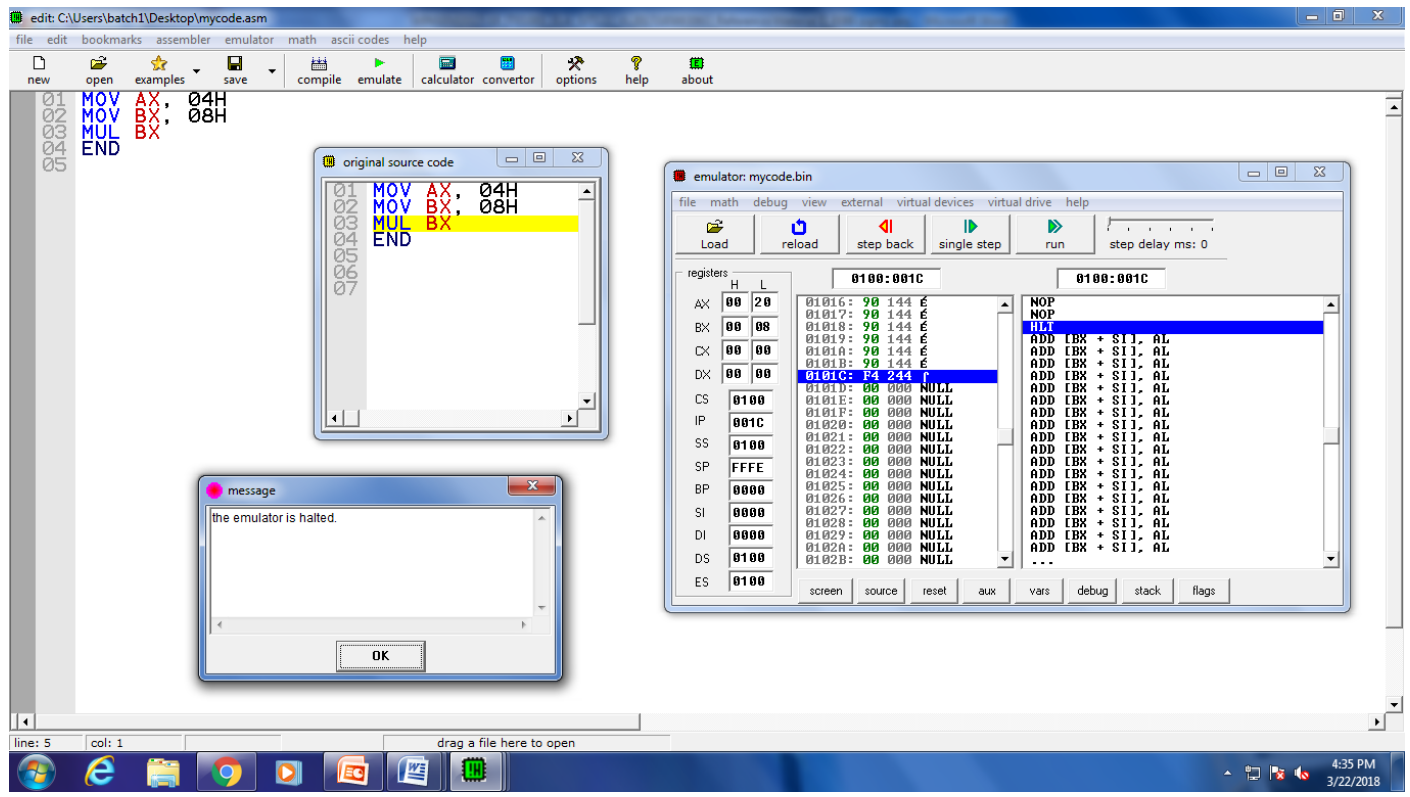
```
MOV SI, 1000H
MOV AL, [SI]
INC SI
MOV BL, [SI]
ADD AL, BL
INC SI
MOV [SI], AL
END
```



5. Write an ALP for performing multiplication and division of 2 16 bit numbers.

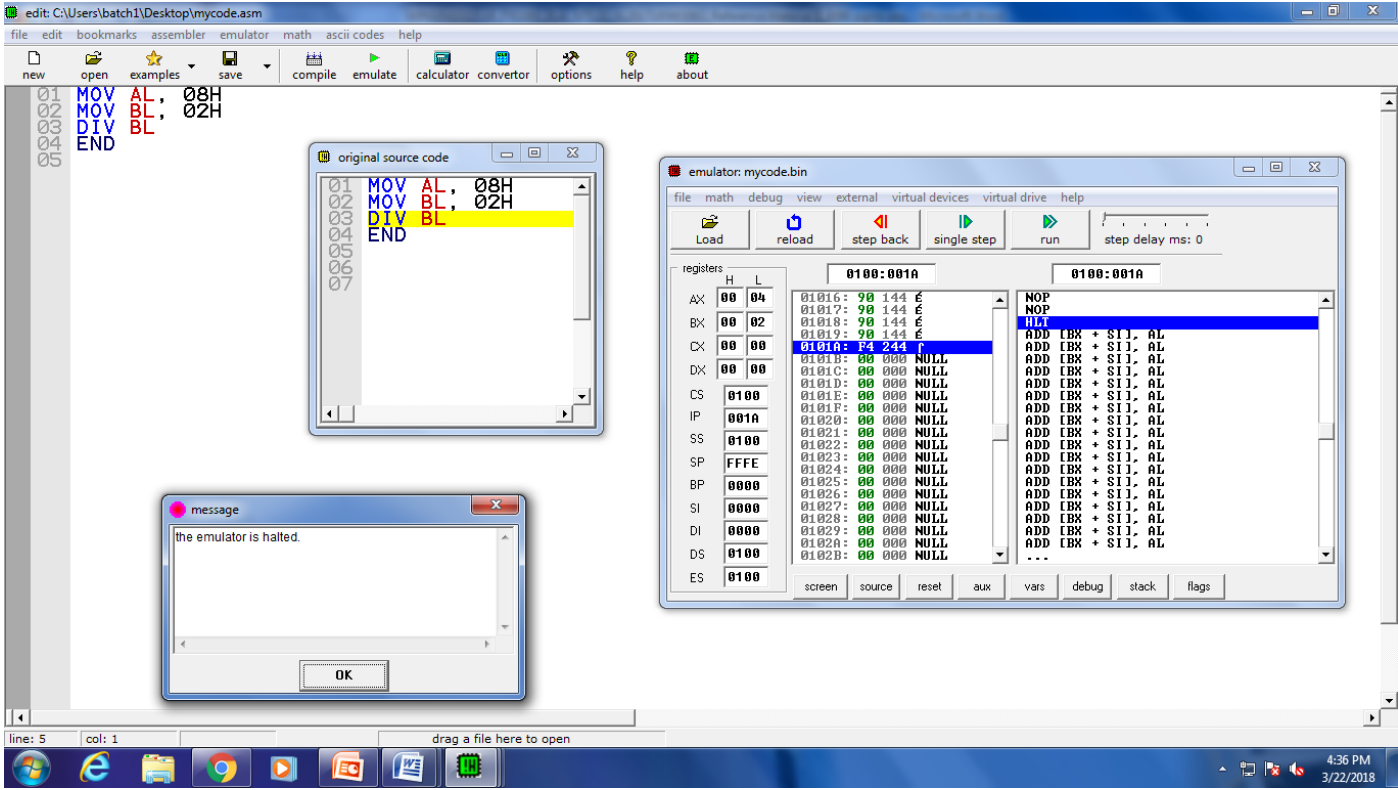
FOR MULTIPLICATION

```
MOV AX, 04H
MOV BX, 08H
MUL BX
END
```



FOR DIVISION

```
MOV AL, 08H
MOV BL, 02H
DIV BL
END
```

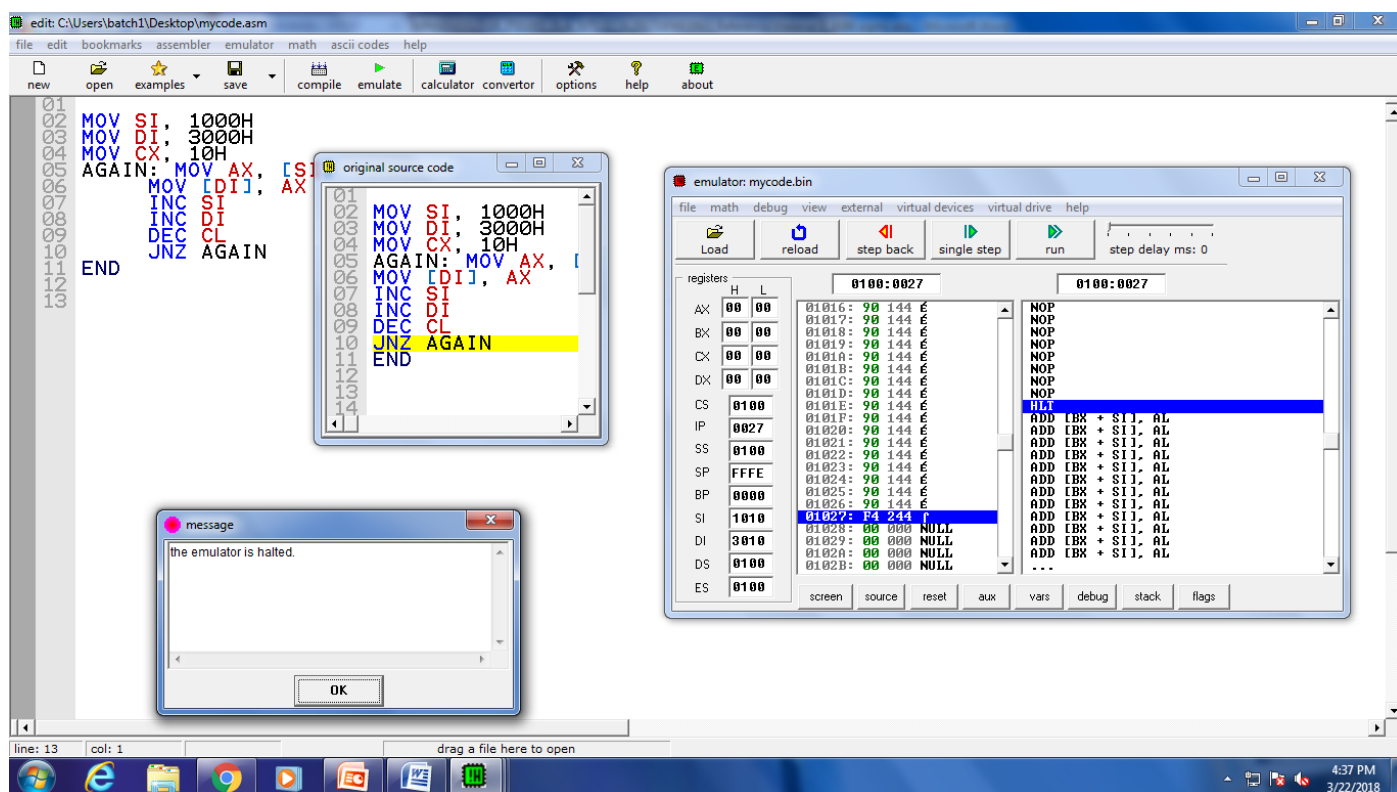


6. Write an ALP for transferring a block of ten 16 bit data from memory address starting at 1000 to a memory location 3000.

```

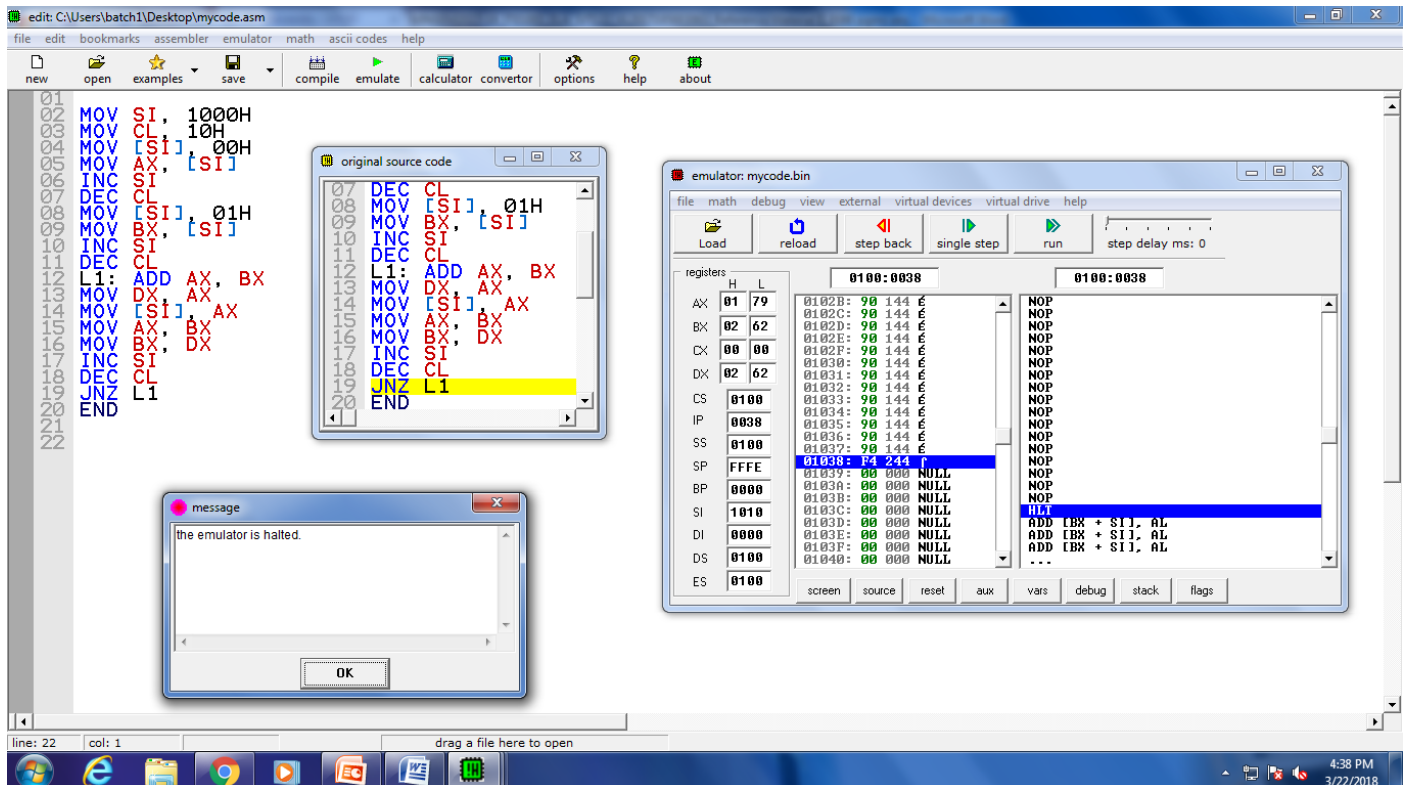
MOV SI, 1000H
MOV DI, 3000H
MOV CX, 10H
AGAIN: MOV AX, [SI]
        MOV [DI], AX
        INC SI
        INC DI
        DEC CL
        JNZ AGAIN
END

```



7. Write an ALP to display 13 numbers of the fibonacci series in a memory location

```
MOV SI, 1000H
MOV CL, 10H
MOV [SI], 00H
MOV AX, [SI]
INC SI
DEC CL
MOV [SI], 01H
MOV BX, [SI]
INC SI
DEC CL
L1: ADD AX, BX
MOV DX, AX
MOV [SI], AX
MOV AX, BX
MOV BX, DX
INC SI
DEC CL
JNZ L1
END
```



emu8086 - assembler and microprocessor emulator 4.08

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8086 MICROPROCESSOR

1) Write an ALP for adding two 16 bit numbers 0122H, 0127H stored in register B and C respectively.

```
MOV BX, 0122H
MOV CX, 0127H
MOV AX, BX
ADD AX, CX
END
```

2) Write an ALP for adding two 8 bit numbers 02H, 1BH stored in register B and C.

```
MOV BX, 02H
MOV CX, 1BH
MOV AX, BX
ADD AX, CX
END
```

3) Write an ALP for subtracting two 8 bit numbers stored in register.

```
MOV BX, 08H
MOV CX, 02H
MOV AX, BX
SUB AX, CX
```

4.) Write an ALP for storing the 16 bit data in memory address 1000 and 1001. Then perform addition of these two numbers & store the result in memory address 1002

```
MOV SI, 1000H
MOV AL, [SI]
INC SI
MOV BL, [SI]
ADD AL, BL
INC SI
MOV [SI], AL
END
```

5.) Write an ALP for performing multiplication and division of two 16 bit numbers.

FOR MULTIPLICATION

```
MOV AX, 04H
MOV BX, 08H
MUL BX
END
```

FOR DIVISION

```
MOV AL, 08H
MOV BL, 02H
DIV BL
```

6) Write an ALP for transferring a block of ten 16 bit data from memory address starting at 1000 to a memory location 3000.

```
MOV SI, 1000H
MOV DI, 3000H
MOV CX, 10H

AGAIN: MOV AX, [SI]
        MOV [DI], AX
        INC SI
        INC DI
        DEC CL
        JNZ AGAIN
```

END

7) Write an ALP to display 13 numbers of the fibonacci series in a memory location

```
MOV SI, 1000H
MOV CL, 10H
MOV [SI], 00H
MOV AX, [SI]
INC SI
DEC CL
MOV [SI], 01H
MOV BX, [SI]
INC SI
DEC CL
L1: ADD AX, BX
```

Chaitin