AP22110010439

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1. Write a program in assembly language to perform subtraction of 8-bit data.

org 100h

num1 db 24h

num2 db 21h

start:

mov al,num1

sub al,num2

mov bl,al

mov ah,al

and ah,0f0h

shr ah,4

add ah,30h

cmp ah,39h

jle print\_first\_digit

add ah,7

print\_first\_digit:

mov dl,ah

mov ah,02h

int 21h

mov ah,bl

and ah,0Fh

add ah,30h

cmp ah,39h

jle print\_second\_digit

add ah,7

print\_second\_digit:

mov dl,ah

mov ah,02h

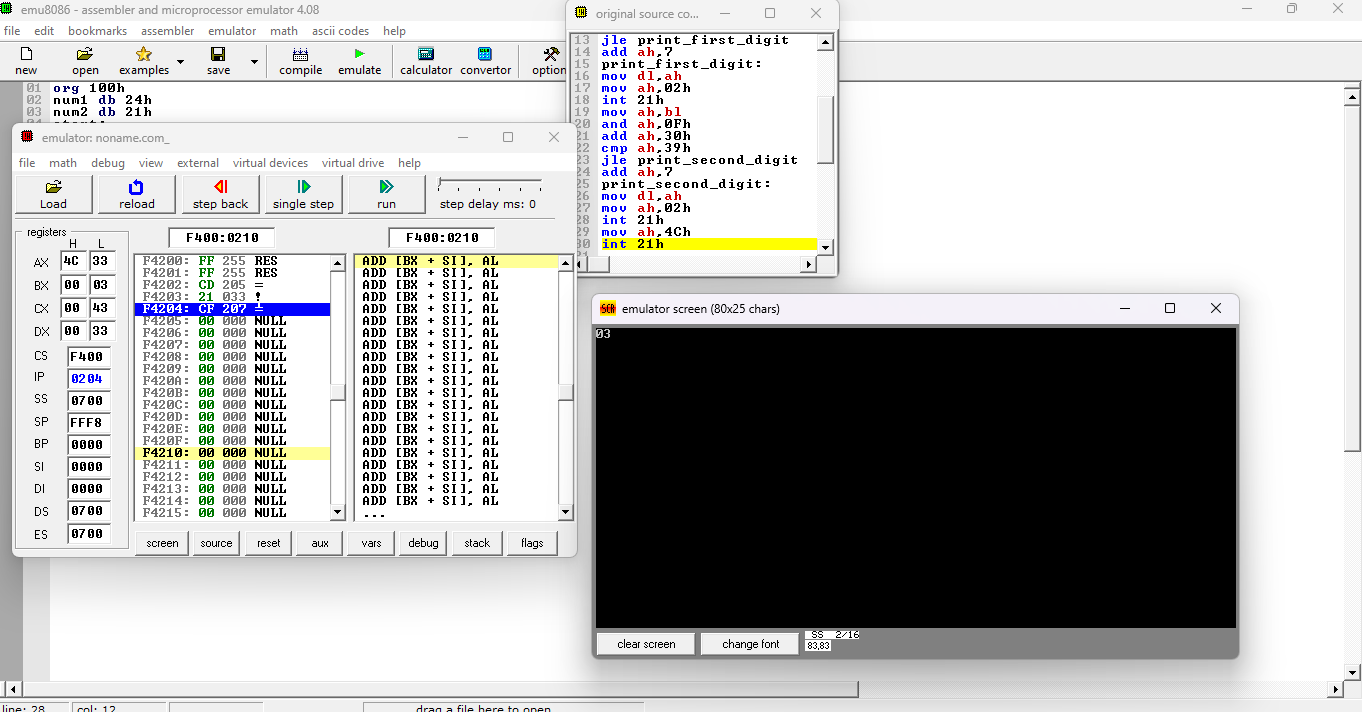
int 21h

mov ah,4Ch

int 21h

ret

OUTPUT :-



2. Write an assembly language program to perform subtraction of 16-bit data.

org 100h

num1 dw 1234h

num2 dw 0ABCh

start:

mov ax, num1

sub ax, num2

mov bx, ax

mov ah, al

and ah, 0F0h

shr ah, 4

add ah, 30h

cmp ah, 39h

jle print\_high\_nibble

add ah, 7

print\_high\_nibble:

mov dl, ah

mov ah, 02h

int 21h

mov ah, bl

and ah, 0Fh

add ah, 30h

cmp ah, 39h

jle print\_low\_nibble

add ah, 7

print\_low\_nibble:

mov dl, ah

mov ah, 02h

int 21h

mov ah, 4Ch

int 21h

ret

OUTPUT:-

