**Q 1. Write an assembly language program to perform division of 8-bit data.**

CODE:

org 100h

mov al, 96h

mov bl, 10h

idiv bl

mov bl, al

mov bh, ah

and al, 0F0h

shr al, 4

add al, 30h

cmp al, 39h

jle print\_digit1

add al, 7

print\_digit1:

mov dl, al

mov ah, 02h

int 21h

mov al, bl

and al, 0Fh

add al, 30h

cmp al, 39h

jle print\_digit2

add al, 7

print\_digit2:

mov dl, al

mov ah, 02h

int 21h

mov al, bh

and al, 0F0h

shr al, 4

add al, 30h

cmp al, 39h

jle print\_first\_rem\_digit

add al, 7

print\_first\_rem\_digit:

mov dl, al

mov ah, 02h

int 21h

mov al, bh

and al, 0F0h

shr al, 4

add al, 30h

cmp al, 39h

jle print\_second\_rem\_digit

add al, 7

print\_second\_rem\_digit:

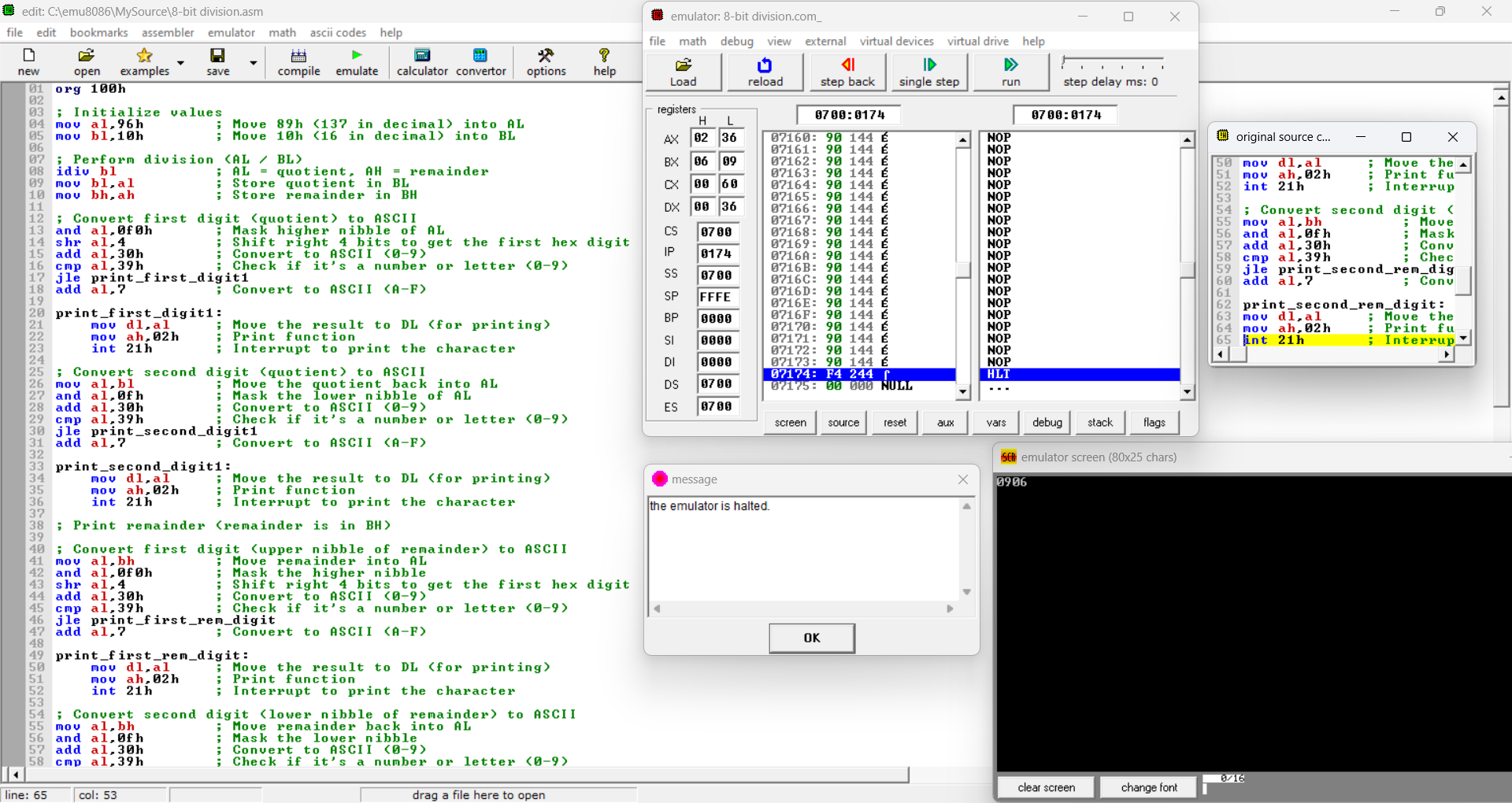
mov dl, al

mov ah, 02h

int 21h

**Output:**

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**Q 2. Write a program in assembly language to perform division of 16-bit data.**

CODE:

org 100h

mov ax, 1982h

mov bx, 1000h

div bx

mov bx, ax

mov cx, dx

mov ah, ch

and ah, 0F0h

shr ah, 4

add ah, 30h

cmp ah, 39h

jle print\_high\_nibble32

add ah, 7

print\_high\_nibble32:

mov dl, ah

mov ah, 02h

int 21h

mov ah, ch

and ah, 0Fh

add ah, 30h

cmp ah, 39h

jle print\_low\_nibble32

add ah, 7

print\_low\_nibble32:

mov dl, ah

mov ah, 02h

int 21h

mov ah, cl

and ah, 0F0h

shr ah, 4

add ah, 30h

cmp ah, 39h

jle print\_high\_nibble24

add ah, 7

print\_high\_nibble24:

mov dl, ah

mov ah, 02h

int 21h

mov ah, cl

and ah, 0Fh

add ah, 30h

cmp ah, 39h

jle print\_low\_nibble24

add ah, 7

print\_low\_nibble24:

mov dl, ah

mov al, 02h

int 21h

mov ah, bh

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, bh

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, bl

and ah, 0F0h

shr ah, 4

add ah, 30h

cmp ah, 39h

jle print\_high\_nibble2

add ah, 7

print\_high\_nibble2:

mov dl, ah

mov ah, 02h

int 21h

mov ah, bl

and ah, 0Fh

add ah, 30h

cmp ah, 39h

jle print\_low\_nibble2

add ah, 7

print\_low\_nibble2:

mov dl, ah

mov al, 02h

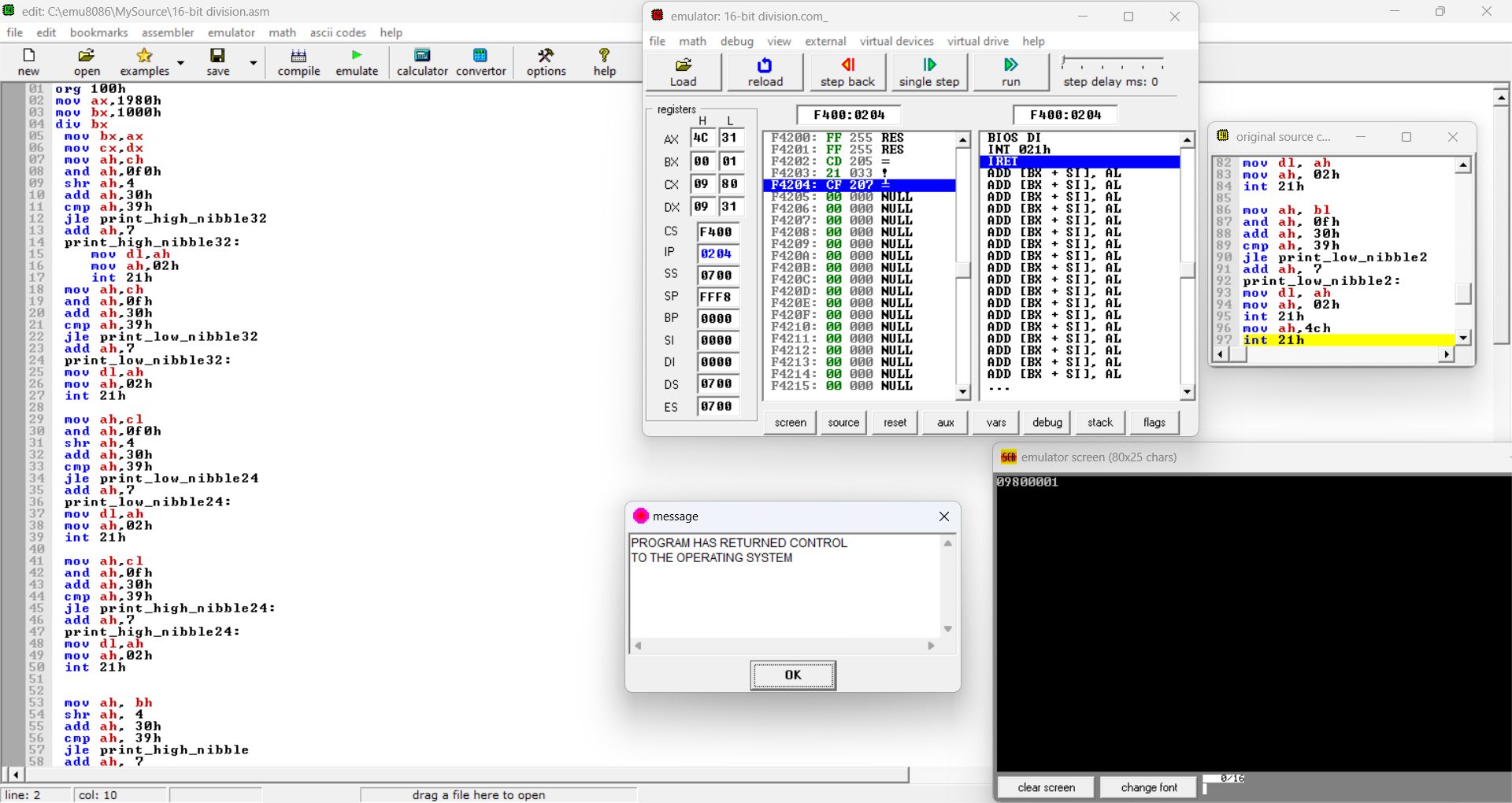
int 21h

mov ah, 4ch

int 21h

Output:





Git hub Repository link:

<https://github.com/SruthiVihitha/COA-Lab_task-5.git>