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Task 1

```
DOSBox Status Window
DOSBox 0.74, Cpu speed:   3000 cycles, Frameskip  0, Program:   DOSBOX
Z:\>c:

C:\>edit lab5.asm

C:\>masm lab5.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


  51710 + 464834 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>link lab5.obj;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


C:\>lab5.exe
123
C:\>lab5.exe
224
C:\>
```

Task 2

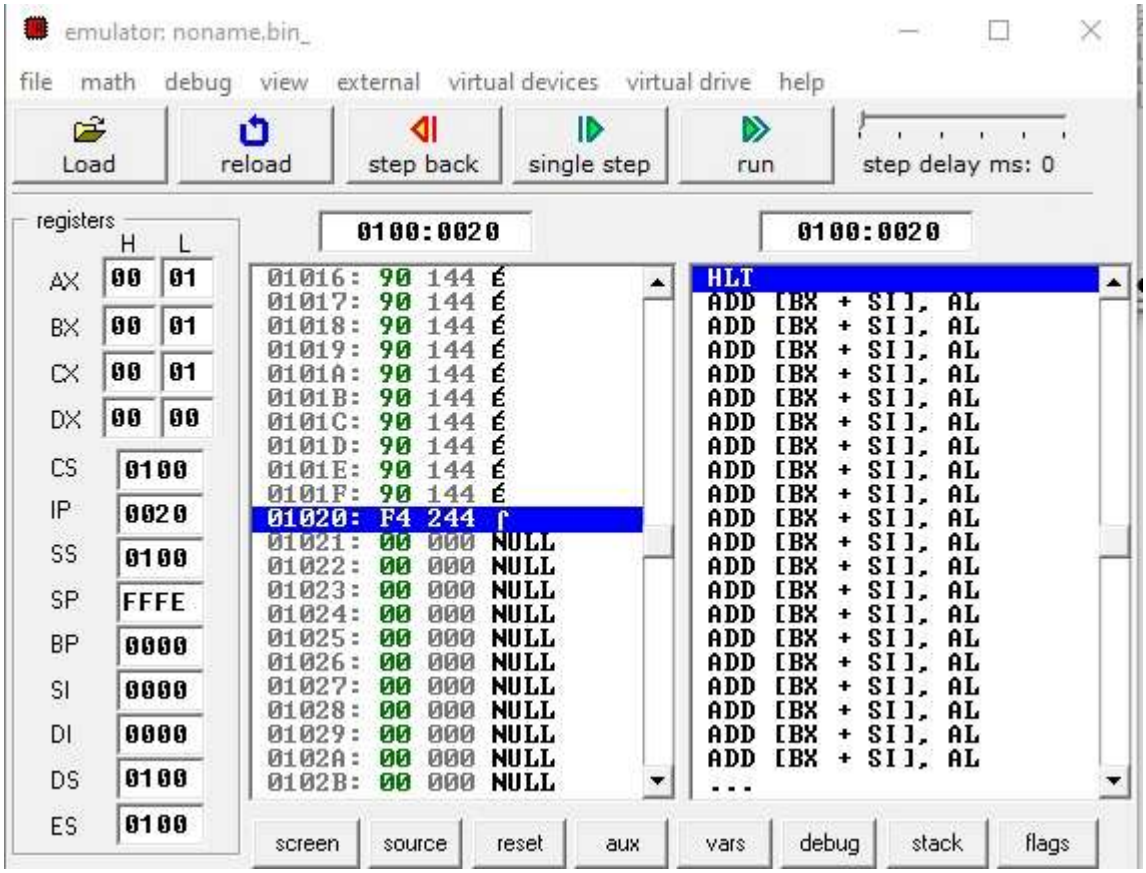
```
DOSBox 0.74, Cpu speed:   3000 cycles, Frameskip  0, Program:   EDIT
  File  Edit  Search  View  Options  Help
                    C:\LAB5_TAS.ASM
dosseg
.model small
.stack 100h
.data
  msg1 db 'Sum$'
.code
main proc
mov ah,1
int 21h
mov bl,al
mov ah,1
int 21h
mov bh,al
mov ah,1
int 21h
mov cl,al
add bl,bh
sub bl,48
mov ch,bl
add ch,cl
sub ch,48
mov msg1,ch
F1=Help                                  Line:1    Col:1
```

```
mov ah,2
mov dl,msg1
int 21h
mov ah,4ch
int 21h
main endp
end main

F1=Help                                          Line:10    Col:1
```

```
DOSBox Status Window
DOSBox 0.74, Cpu speed:   3000 cycles, Frameskip  0, Program:  DOSBOX

      0 Warning Errors
      2 Severe  Errors

C:\>edit lab5_task2.asm

C:\>masm lab5_task2.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


  51678 + 464866 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>link lab5_task2.obj;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


C:\>lab5_task2.exe
1236
```

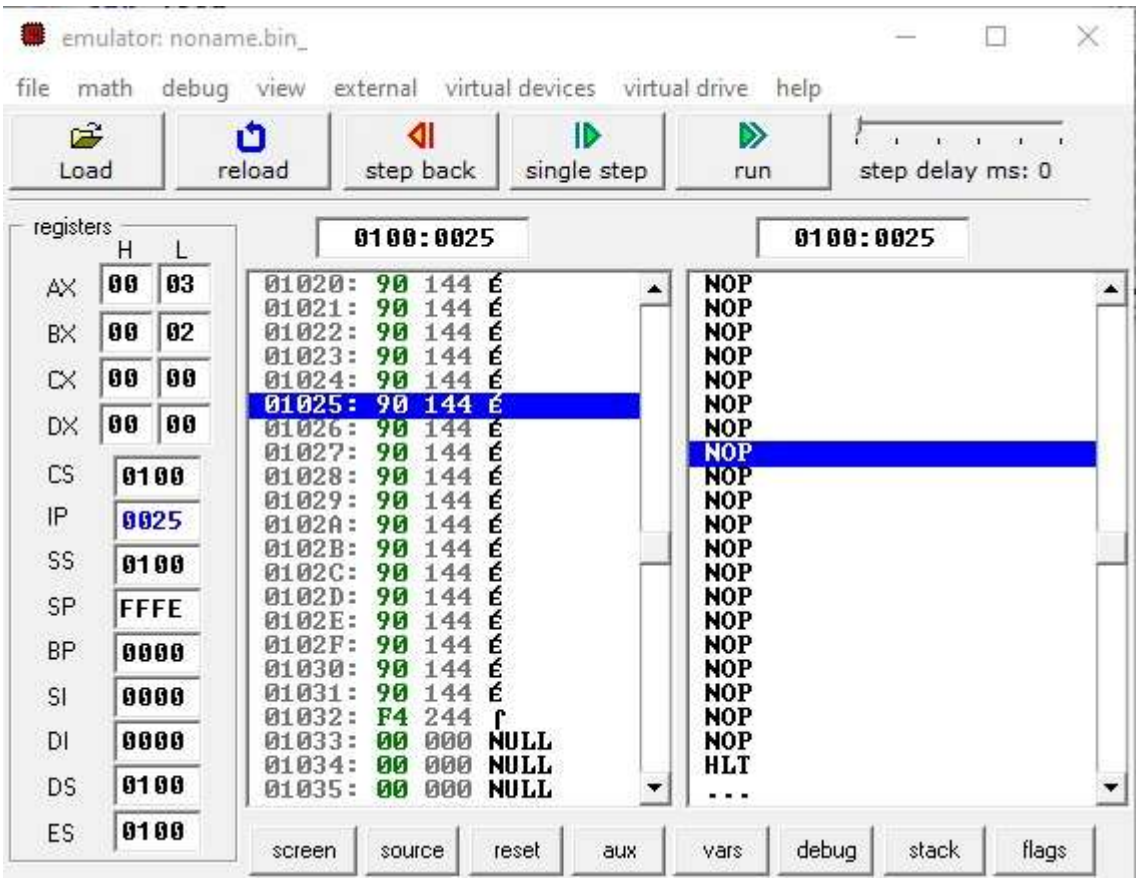
Task 3

```
mov  ax,1h
mov  bx,1h
jmp  abc
mov  cx,ax
abc:
mov  cx,ax
```



Task 4

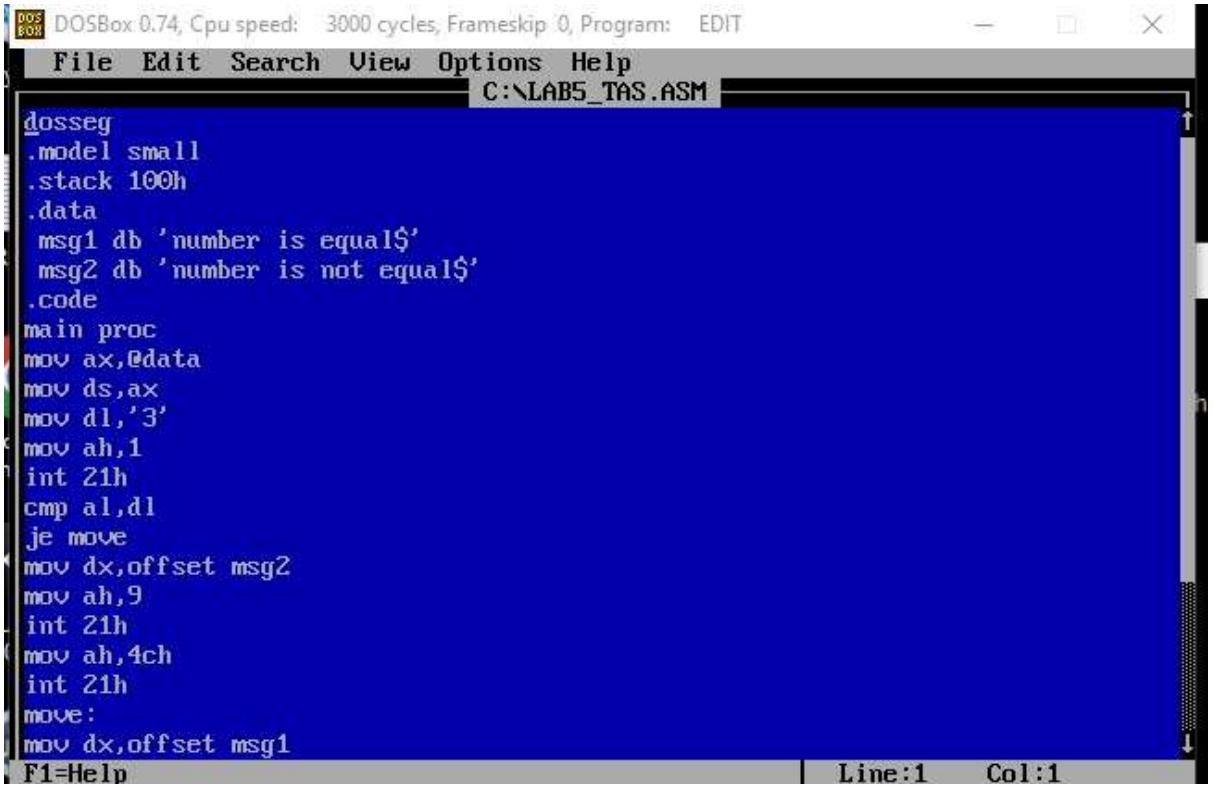
```
mov  ax,5
   mov  bx,3
   add  ax,bx
jmp  last
mid:
mov  ax,1
mov  bx,2
add  ax,bx
jmp  lst
last:
mov  ax,3
mov  bx,3
add  ax,bx
jmp  mid
lst:
```



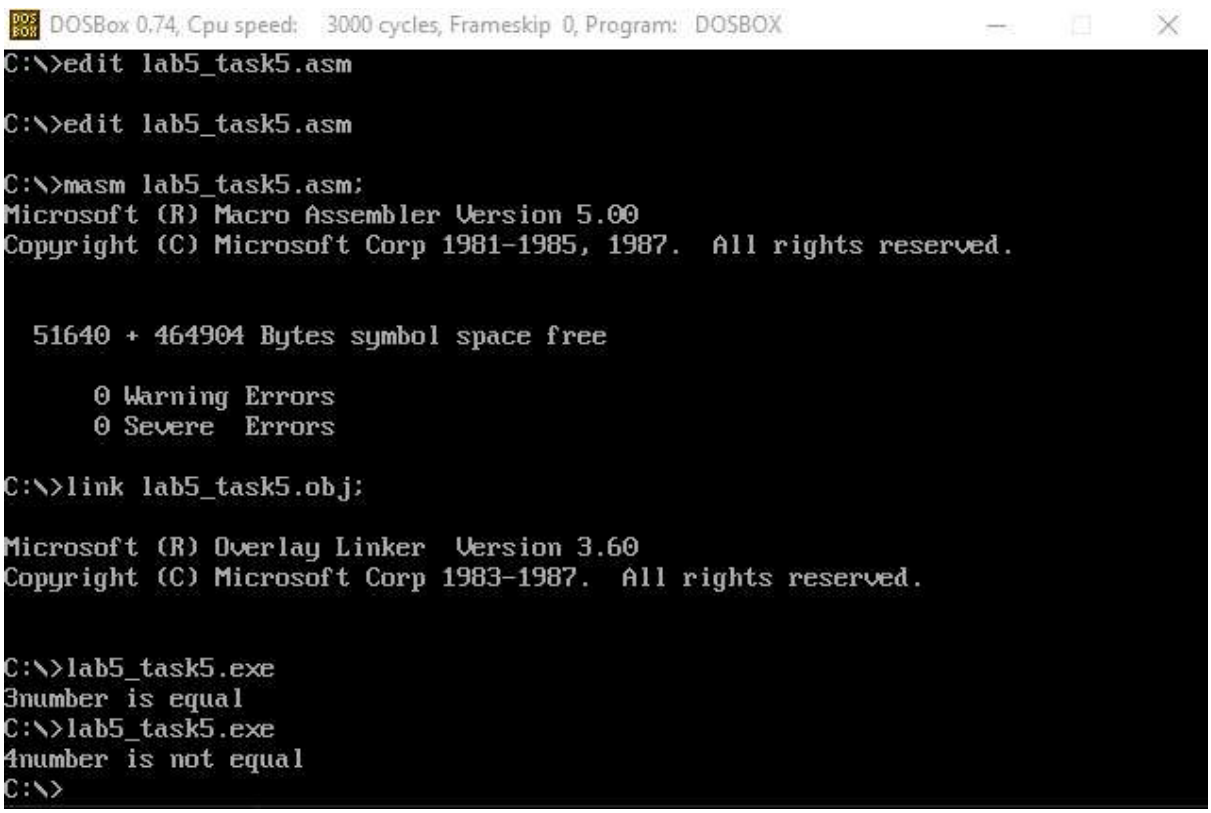
Task 5

```
include 'emu8086.inc'
.model small
.stack 100h
.data
.code

main proc
    mov dl,5
    mov bl,5
    cmp dl,bl
je move
print 'Both are not equal'
mov ah,04h
int 21h
move:
print 'Both are equal'
mov ah,04h
int 21h
main endp
end main
```

Task 6


DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\LAB5_TAS.ASM
dosseg
.model small
.stack 100h
.data
msg1 db 'number is equal$'
msg2 db 'number is not equal$'
.code
main proc
mov ax,@data
mov ds,ax
mov dl,'3'
mov ah,1
int 21h
cmp al,dl
je move
mov dx,offset msg2
mov ah,9
int 21h
mov ah,4ch
int 21h
move:
mov dx,offset msg1
F1=Help
Line:1 Col:1


mov ah,9
int 21h
mov ah,4ch
int 21h
main endp
end main
F1=Help
Line:9 Col:1

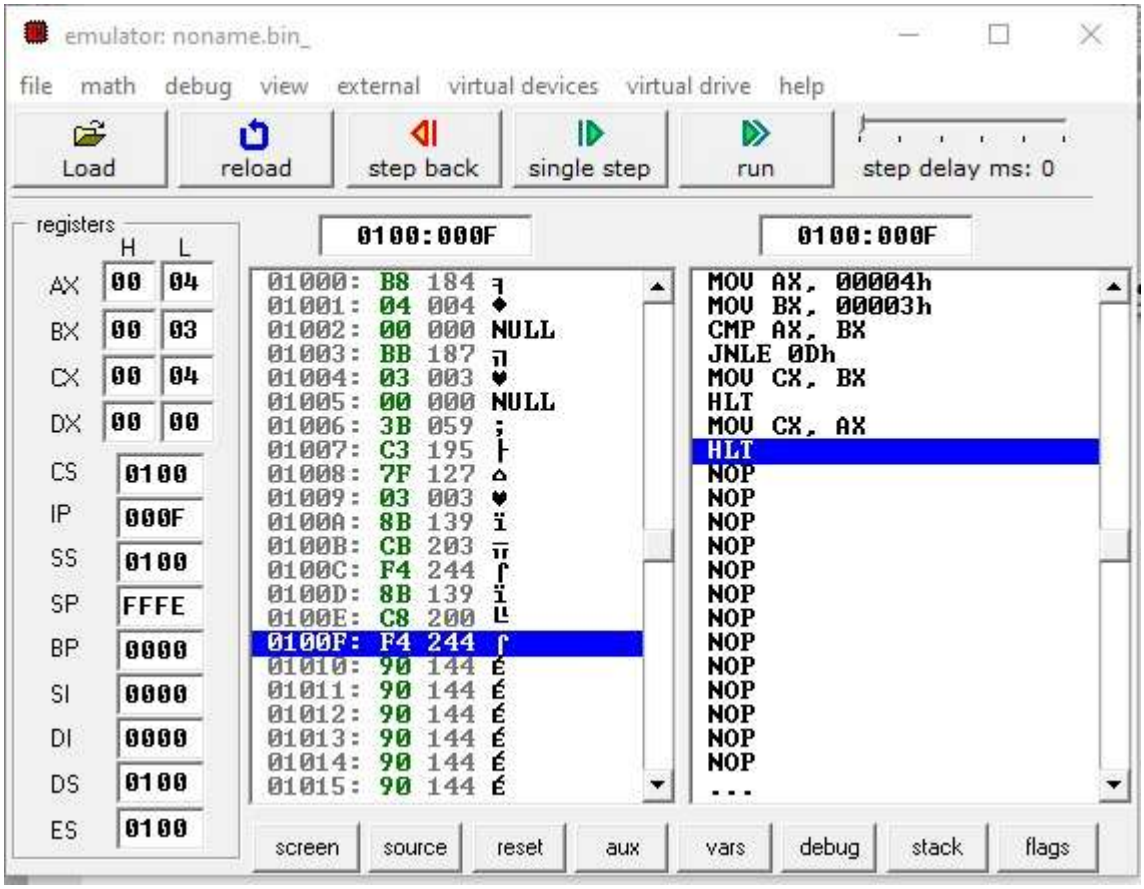


Task 7

```
include 'emu8086.inc'
.model small
.stack 100h
.data
.code

main proc
    mov ax,6
    mov bx,4
    cmp ax,bx
jg move
mov ax,5
print '5'

move:
mov ax,3
print '3'


mov ah,4ch
int 21h
main endp
end main
```

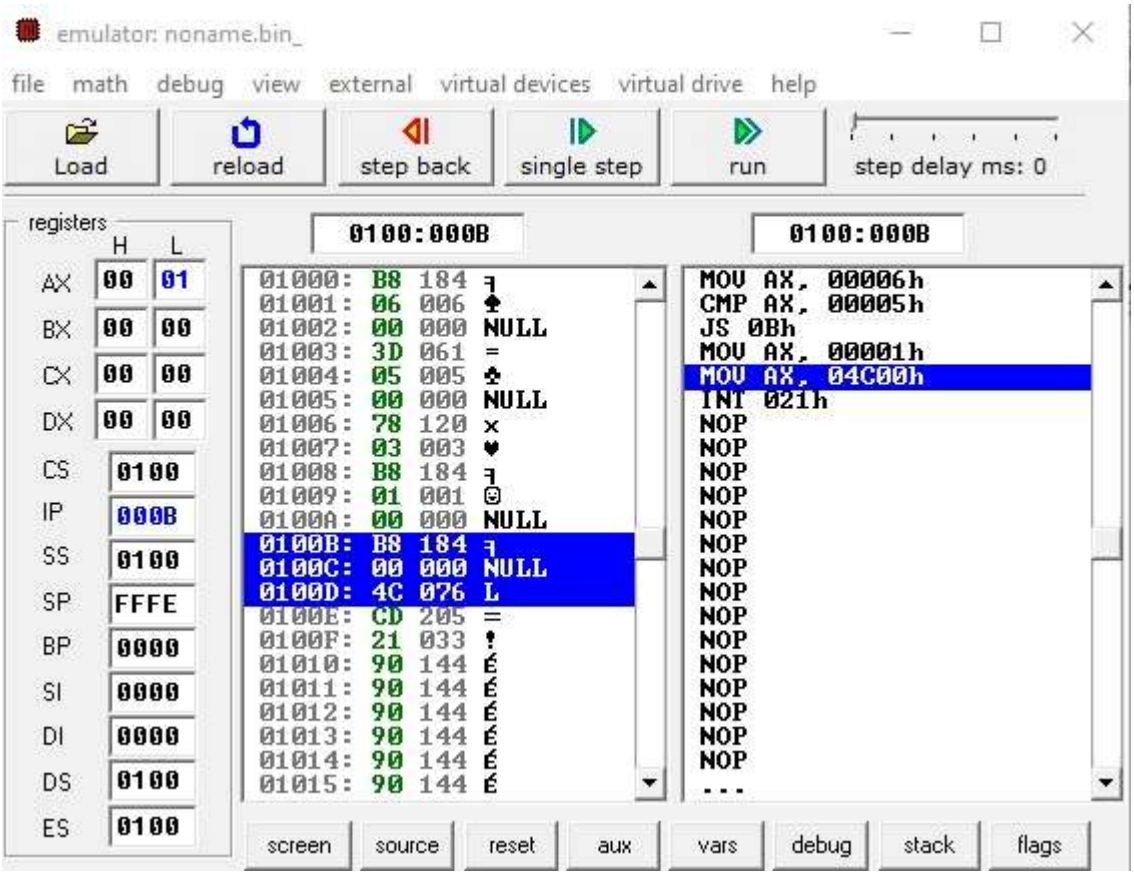
Task 8

```
mov ax,4h
mov bx,3h
cmp ax,bx

jg abc
mov cx,bx
hlt
abc:
mov cx,ax
hlt
```



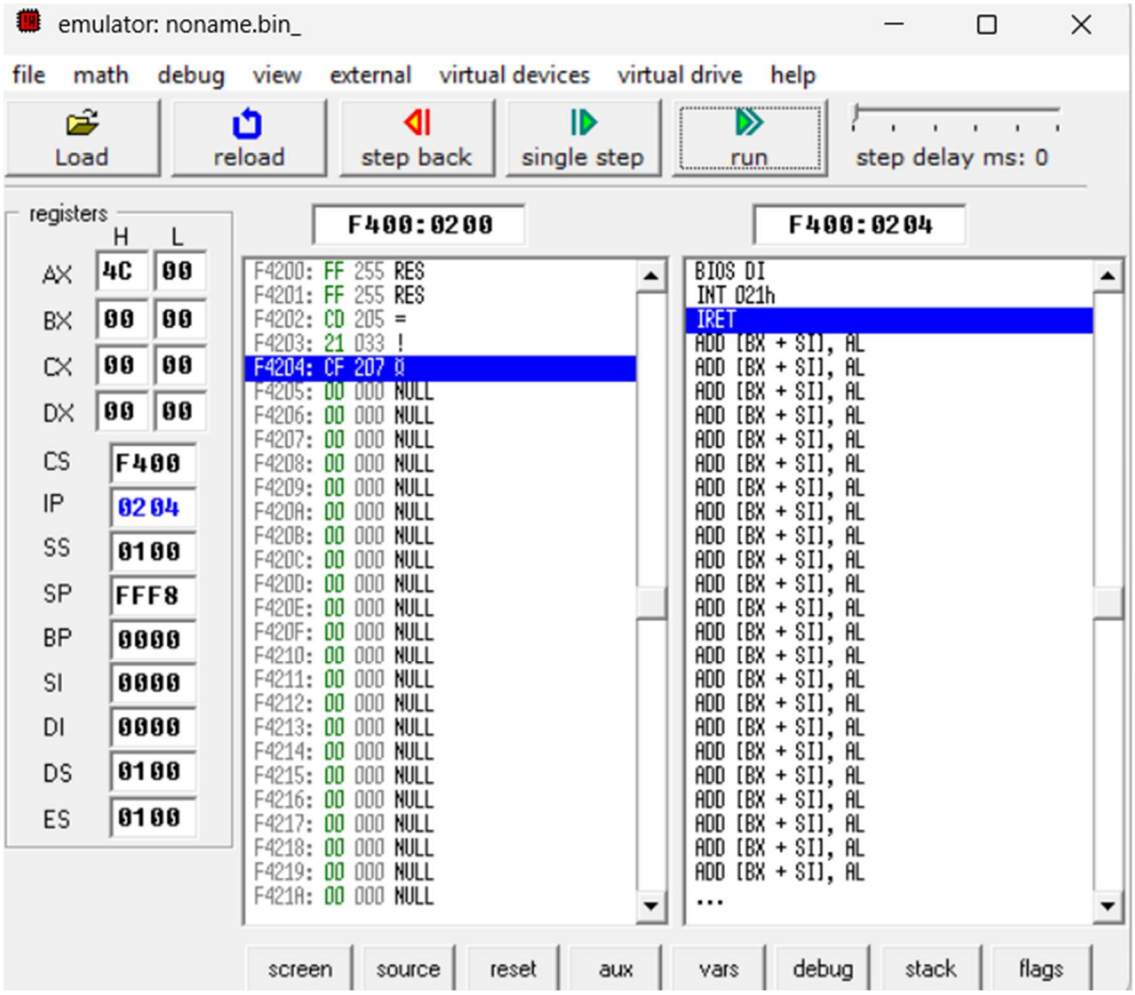
Task 9

```
mov ax,6
cmp ax,5
js exit

mov ax,1

exit:
mov ax,0x4c00
int 0x21
```



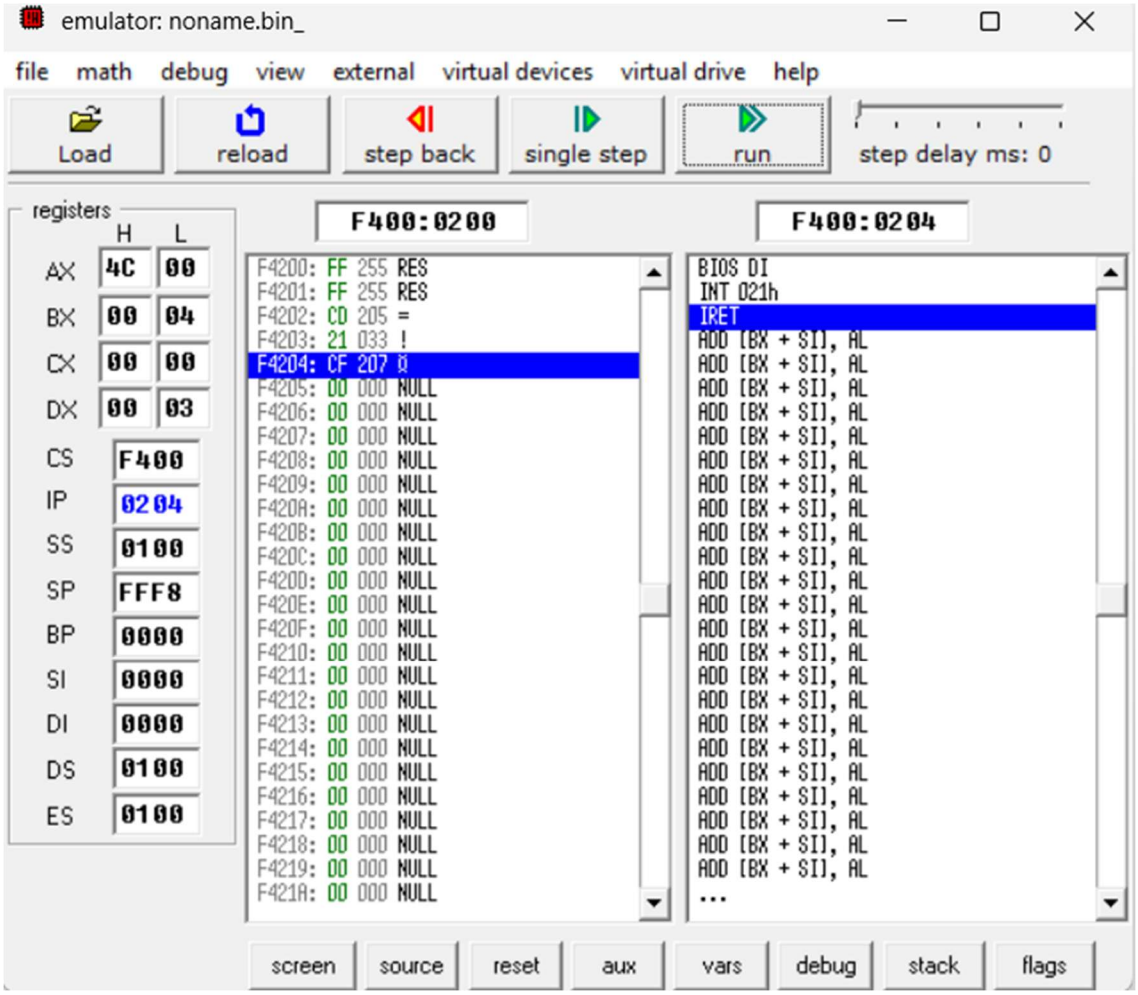
Task 10

```
[org 0x100]
mov ax,3
cmp ax,6
js add
jns exit
add:
mov ax,2
exit:
mov ax,0x4c00
int 0x21
```



Task 11

```
mov ax,4
mov bx,4
cmp ax,bx
jz move
jnz exit
move:
mov dx,3
exit:
mov ax,0x4c00
int 0x210x21
```


emulator: noname.bin_
file
math
debug
view
external
virtual devices
virtual drive
help
Load
reload
step back
single step
run
step delay ms: 0
registers
H
L
AX 4C 00
BX 00 04
CX 00 00
DX 00 03
CS F400
IP 0204
SS 0100
SP FFF8
BP 0000
SI 0000
DI 0000
DS 0100
ES 0100
F400:0200
F400:0204
F4200: FF 255 RES
F4201: FF 255 RES
F4202: CD 205 =
F4203: 21 033 !
F4204: CF 207 Ï
F4205: 00 000 NULL
F4206: 00 000 NULL
F4207: 00 000 NULL
F4208: 00 000 NULL
F4209: 00 000 NULL
F420A: 00 000 NULL
F420B: 00 000 NULL
F420C: 00 000 NULL
F420D: 00 000 NULL
F420E: 00 000 NULL
F420F: 00 000 NULL
F4210: 00 000 NULL
F4211: 00 000 NULL
F4212: 00 000 NULL
F4213: 00 000 NULL
F4214: 00 000 NULL
F4215: 00 000 NULL
F4216: 00 000 NULL
F4217: 00 000 NULL
F4218: 00 000 NULL
F4219: 00 000 NULL
F421A: 00 000 NULL
BIOS DI
INT 021h
IRET
ADD [BX + SI], AL
...
screen
source
reset
aux
vars
debug
stack
flags