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CLASS: BSSE (4th SEMESTER)

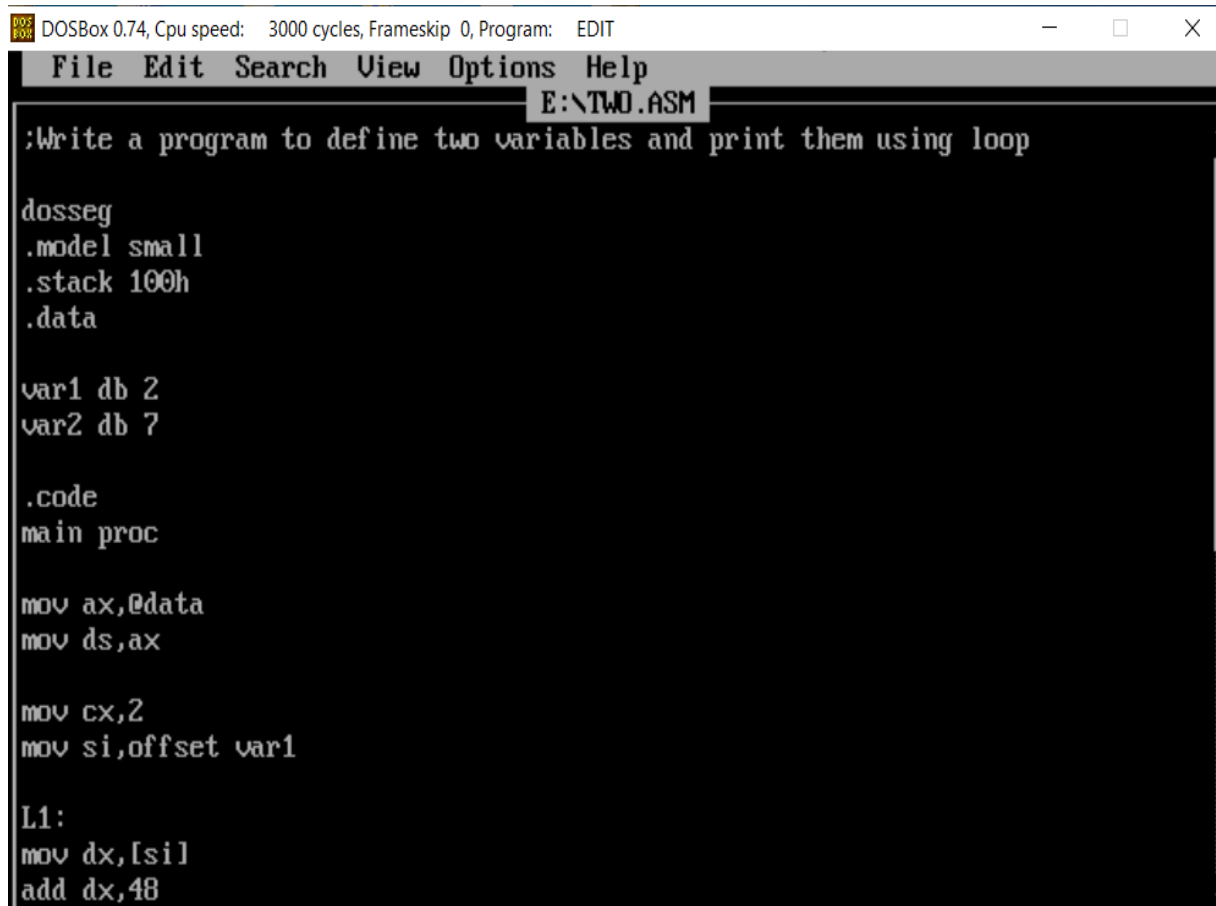
COURSE NAME: ASSEMBLY

LANGUAGE

COURSE CODE: 402

DEPARTMENT: COMPUTER SCIENCE

TASK 1: Define two variable and print them using loop:



```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
E:\TWO.ASM
;Write a program to define two variables and print them using loop

dosseg
.model small
.stack 100h
.data

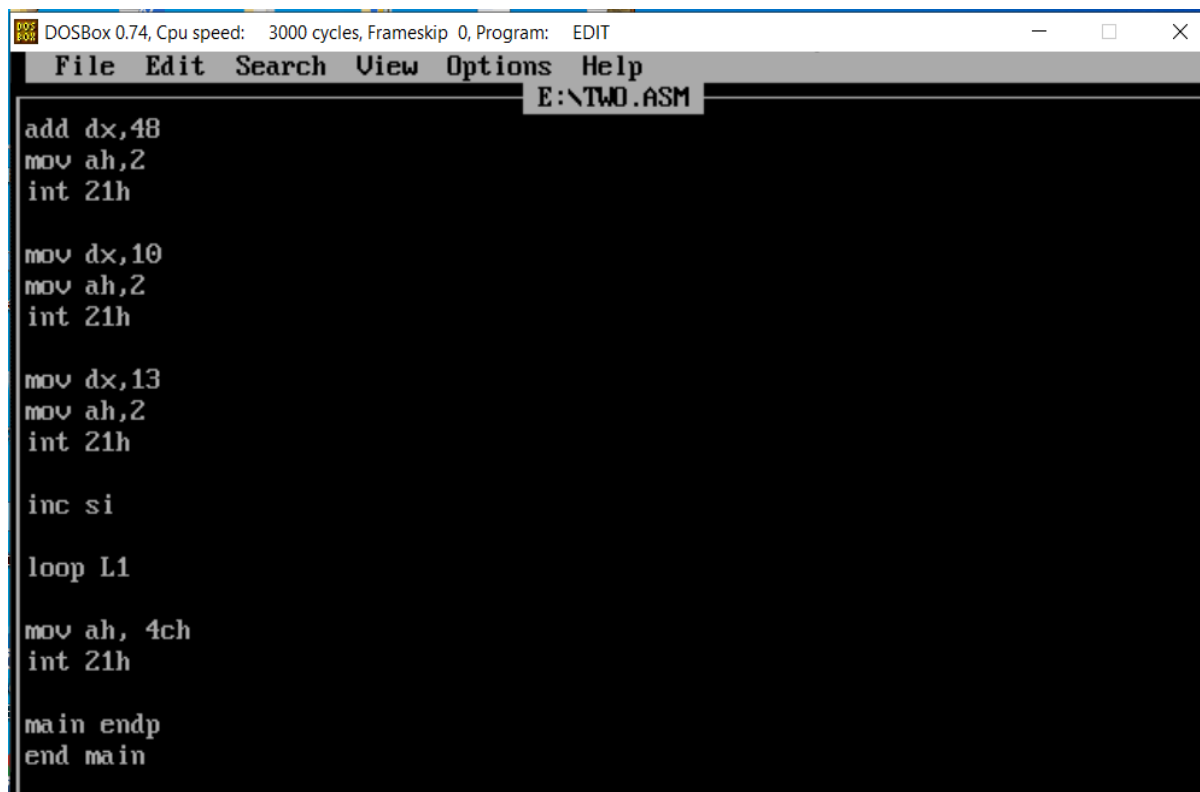
var1 db 2
var2 db 7

.code
main proc

mov ax,0data
mov ds,ax

mov cx,2
mov si,offset var1

L1:
mov dx,[si]
add dx,48
```



```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
E:\TWO.ASM

add dx,48
mov ah,2
int 21h

mov dx,10
mov ah,2
int 21h

mov dx,13
mov ah,2
int 21h

inc si

loop L1

mov ah, 4ch
int 21h

main endp
end main
```

Output:

```
DOSBOX 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
Illegal command: two.asm.

E:\>edit two.asm

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

51642 + 464902 Bytes symbol space free

0 Warning Errors
0 Severe Errors

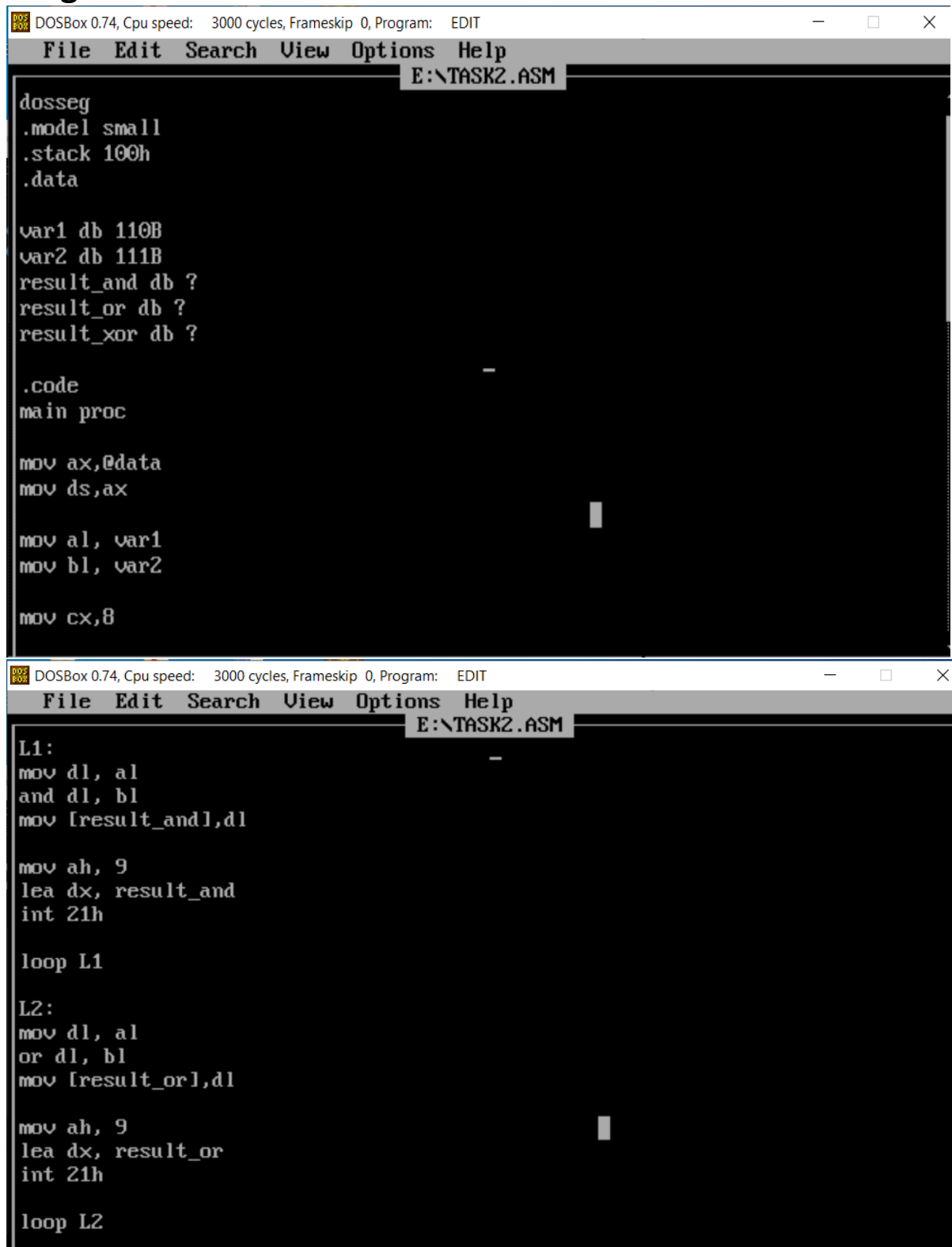
E:\>link two.obj;

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

E:\>two.exe
2
7
```

Task2: perform AND OR XOR operations in three different loops

Program:



```
dosseg
.model small
.stack 100h
.data

var1 db 110B
var2 db 111B
result_and db ?
result_or db ?
result_xor db ?

.code
main proc

mov ax,@data
mov ds,ax

mov al, var1
mov bl, var2

mov cx,8

L1:
mov dl, al
and dl, bl
mov [result_and],dl

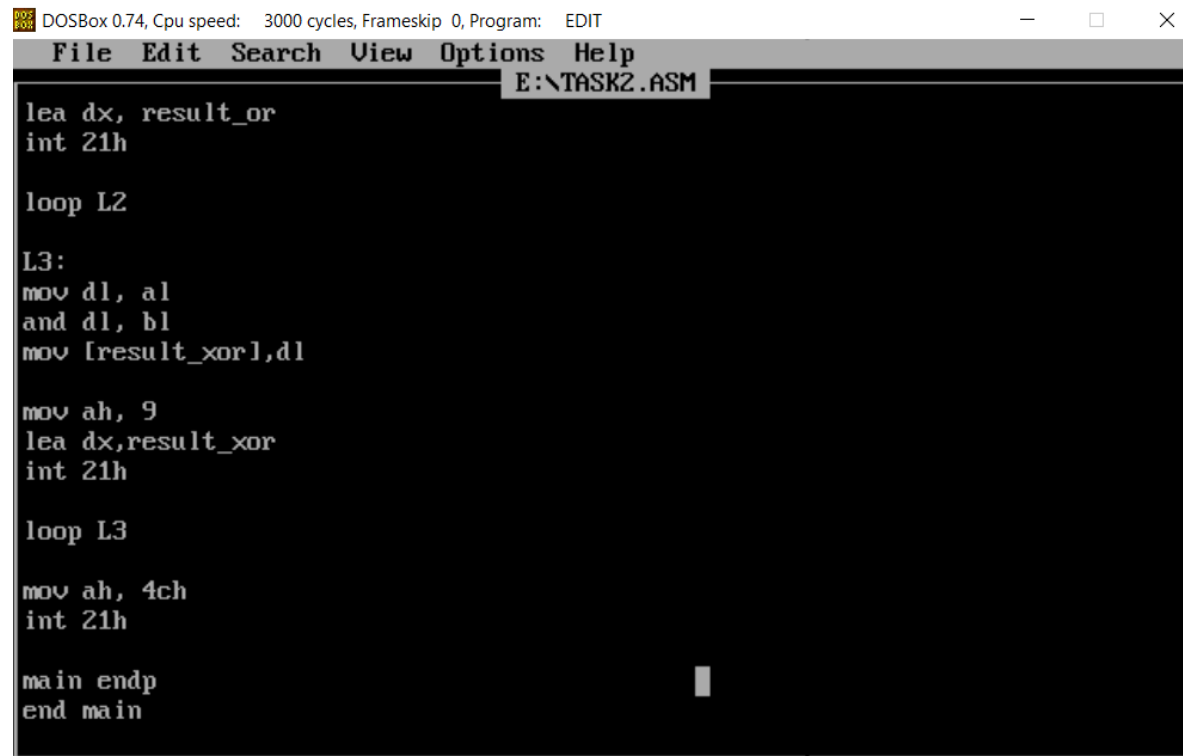
mov ah, 9
lea dx, result_and
int 21h

loop L1

L2:
mov dl, al
or dl, bl
mov [result_or],dl

mov ah, 9
lea dx, result_or
int 21h

loop L2
```



DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT

File Edit Search View Options Help

E:\TASK2.ASM

```
lea dx, result_or
int 21h

loop L2

L3:
mov dl, al
and dl, bl
mov [result_xor],dl

mov ah, 9
lea dx,result_xor
int 21h

loop L3

mov ah, 4ch
int 21h

main endp
end main
```

Output:

Sorry, there was an error in the output of this question. I tried my best but didn't find the solution I will try to find the problem again this week and I will ask you in the next class.