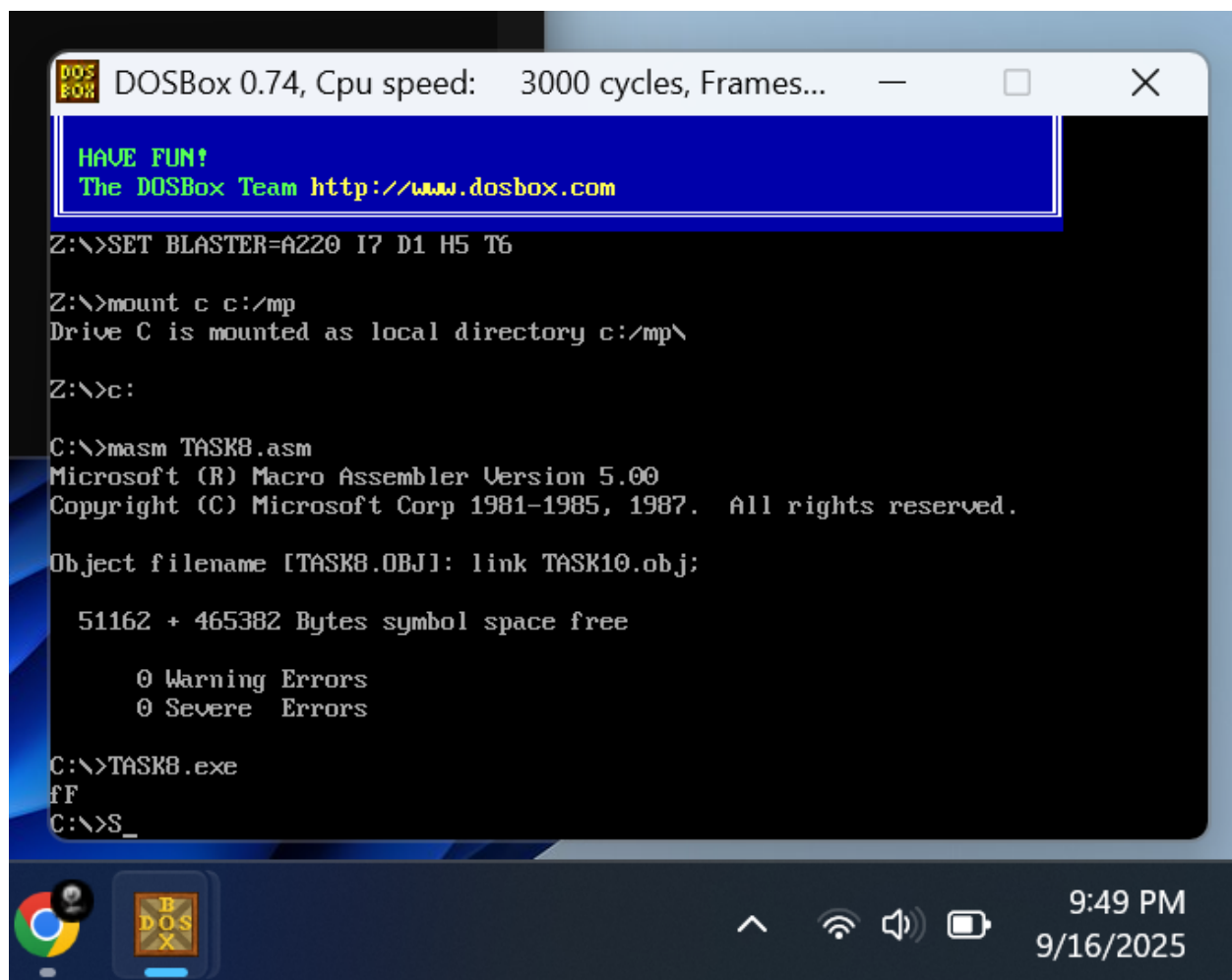


67005_LAB_TASK_03_Saghir_Ali_COAL_AI 3-1

1. Write a MASM program that converts a given capital letter to small letter and a small letter to capital letter using ASCII values.

Small to Capital:



The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: 3000 cycles, Frames...". The window has a blue title bar and a black command prompt area. A blue message box is overlaid on the command prompt, displaying "HAVE FUN!" and "The DOSBox Team <http://www.dosbox.com>". The command prompt shows the following commands and output:

```
Z:\>SET BLASTER=A220 I7 D1 H5 T6

Z:\>mount c c:/mp
Drive C is mounted as local directory c:/mp\

Z:\>c:

C:\>masm TASK8.asm
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

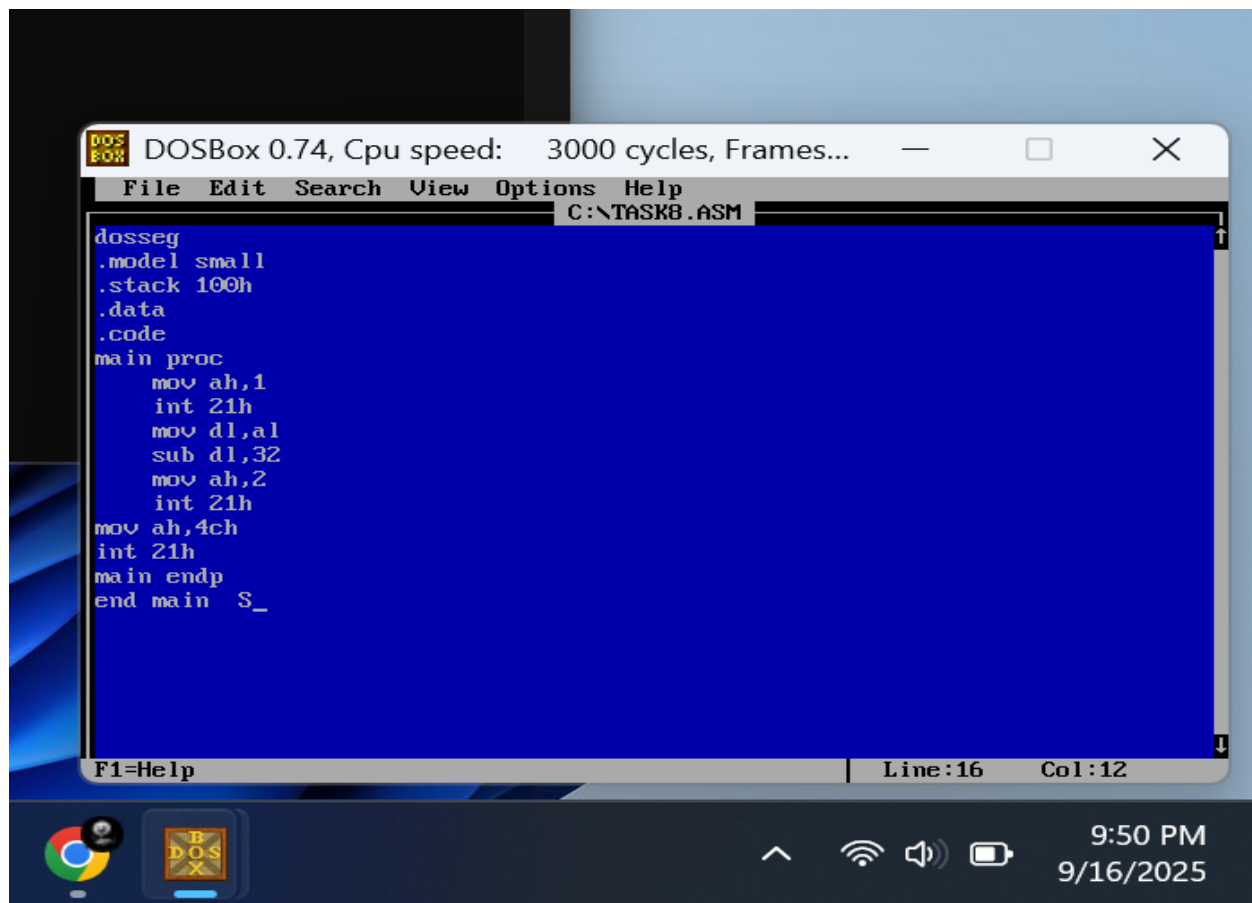
Object filename [TASK8.OBJ]: link TASK10.obj;

51162 + 465382 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>TASK8.exe
ff
C:\>S_
```

The Windows taskbar at the bottom shows the Google Chrome icon, the DOSBox icon, and system icons for network, volume, and battery. The system clock displays "9:49 PM 9/16/2025".



Capital to Small:

DOSBox 0.74, Cpu speed: 3000 cycles, Frames...

File Edit Search View Options Help

C:\CAPITAL1.ASM

```
Sdosseg
.model small
.stack 100h
.data
.code
main proc
    mov ah,1
    int 21h
    mov dl,al
    add dl,32
    mov ah,2
    int 21h
    mov ah,4ch
    int 21h
main endp
end main
```

F1=Help Line:1 Col:2

10:08 PM 9/16/2025

DOSBox 0.74, Cpu speed: 3000 cycles, Frames...

Warning Errors
Severe Errors

```
C:\>capital1.exe
Illegal command: capital1.exe.

C:\>masm capital1.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51690 + 464854 Bytes symbol space free

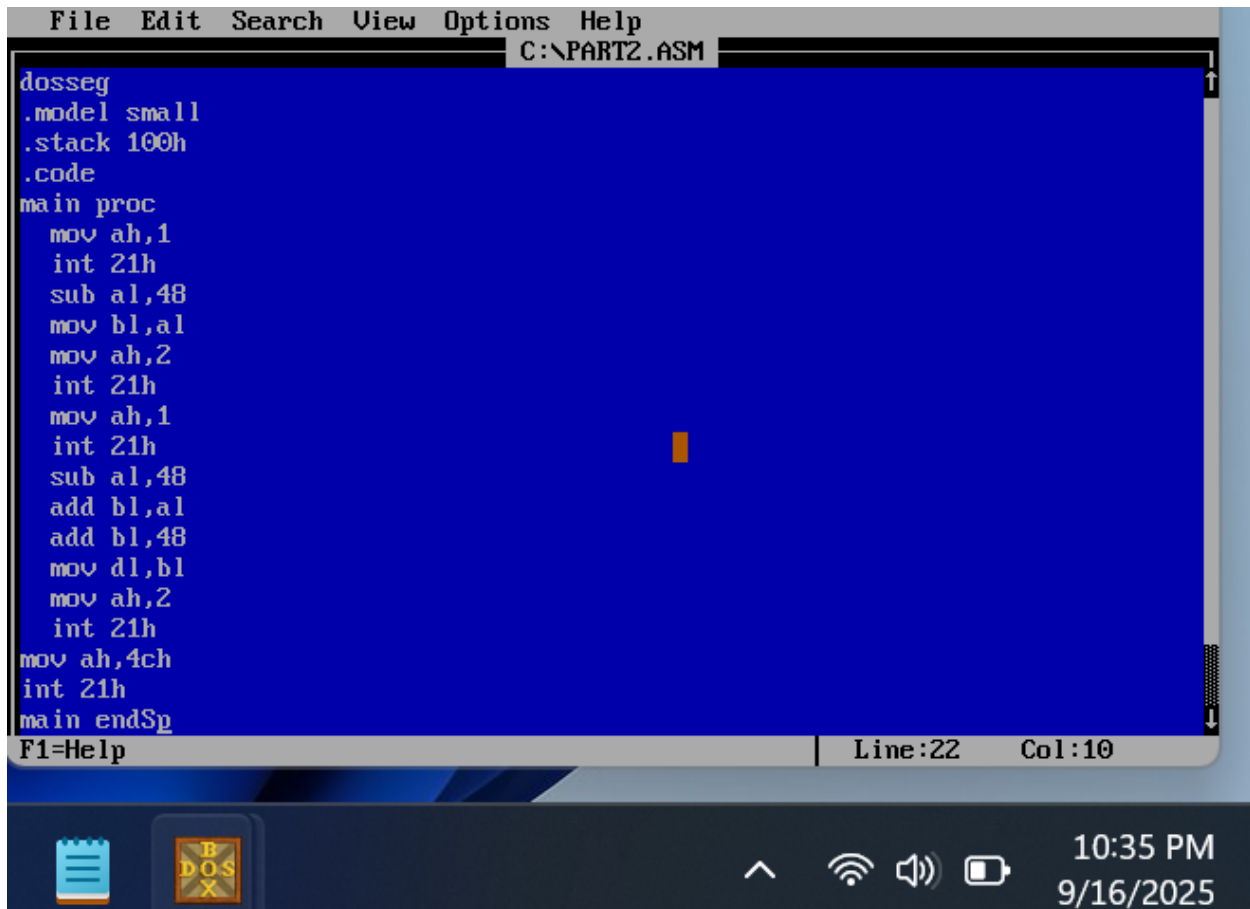
Warning Errors
Severe Errors

C:\>link capital1.obj;
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

C:\>capital1.exe
Gg
C:\>D
```

10:05 PM 9/16/2025

2. Write a MASM program that takes two single-digit inputs from the keyboard and displays their sum.



The image shows a screenshot of a DOS-style MASM editor window. The window has a menu bar with 'File', 'Edit', 'Search', 'View', 'Options', and 'Help'. The title bar indicates the file is 'C:\PART2.ASM'. The main text area has a blue background and contains the following assembly code:

```
dosseg
.model small
.stack 100h
.code
main proc
    mov ah,1
    int 21h
    sub al,48
    mov bl,al
    mov ah,2
    int 21h
    mov ah,1
    int 21h
    sub al,48
    add bl,al
    add bl,48
    mov dl,bl
    mov ah,2
    int 21h
    mov ah,4ch
    int 21h
main endp
```

The cursor is positioned at the end of the second 'int 21h' instruction on line 14. The status bar at the bottom of the editor shows 'F1=Help', 'Line:22', and 'Col:10'. Below the editor window is a taskbar with a 'DOS' icon and system icons for network, volume, and battery. The system clock shows '10:35 PM' and '9/16/2025'.

