LAB 4 (Task 1-5)

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TASK 1

- **Task1:** *Create a new file of any name and in that file write your name and ID. No. twice on two different lines. Hint: make use of carriage return and line feed ASCII codes. Be sure to close the file.*

Code:
```
.model tiny
.data
file1 db "lab4test.txt",0
gg dw ?
dat1 db "Dhairy Agrawal 2018B4A70827G" ,0dh,0ah,"Dhairy Agrawal 2018B4A70827G"
.code
.startup

            mov ah,3ch
            lea dx,file1
            mov cl,20h
            int 21h
            mov ah,3dh
            lea dx,file1
            mov al,02h
            int 21h
            mov gg,ax
            mov ah,40h
            mov bx,gg
            lea dx,dat1
            mov cx,58
```

```
            int 21h
            mov bx,gg
            mov ah,3eh
            int 21h


.exit
end
```

Screen Shot-

LAB4TEST.TXT - Notepad   —

File Edit Format View Help

Dhairy Agrawal 2018B4A70827G
Dhairy Agrawal 2018B4A70827G

Explanation :-

The Screenshot attached shows the input as name and ID Number in two lines updated in the file as LAB4TEST.

Task 2

-To the file resulting from Task1, append your hostel name and room number. Close the file in the end.

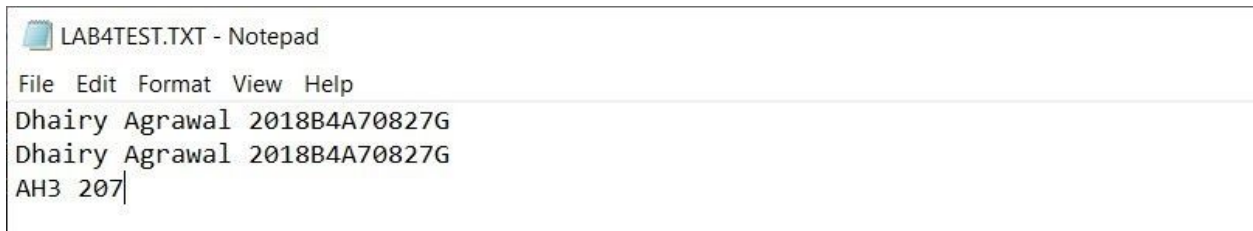## CODE:-

```
.model tiny
.data
fil db "lab4test.txt",0
gg dw ?
dat1 db 0dh,0ah,"AH3 207"
.code
.startup

            mov ah,3dh
            lea dx,fil
            mov al,02h
            int 21h
            mov gg,ax
            mov bx,gg
            mov ah,42h
            mov bx,gg
            mov al,02h
            mov cx,0000
            mov dx,0000
            int 21h
            mov ah,40h
            mov bx,gg
            lea dx,dat1
            mov cx,9
            int 21h
            mov bx,gg
            mov ah,3eh
            int 21h

.exit
end
```

ScreenShot

LAB4TEST.TXT - Notepad

File Edit Format View Help

Dhairy Agrawal 2018B4A70827G
Dhairy Agrawal 2018B4A70827G
AH3 207

Explanation :-

The Screenshot attached shows lines of inputs.

First two as the above task and the last line as hostel number and room number.

Task 3

-Open the file you created in Task 2 and read its contents. You can count the number of bytes to be read beforehand. After reading the file, display the data using dos function call 09h. Close the file in the end.
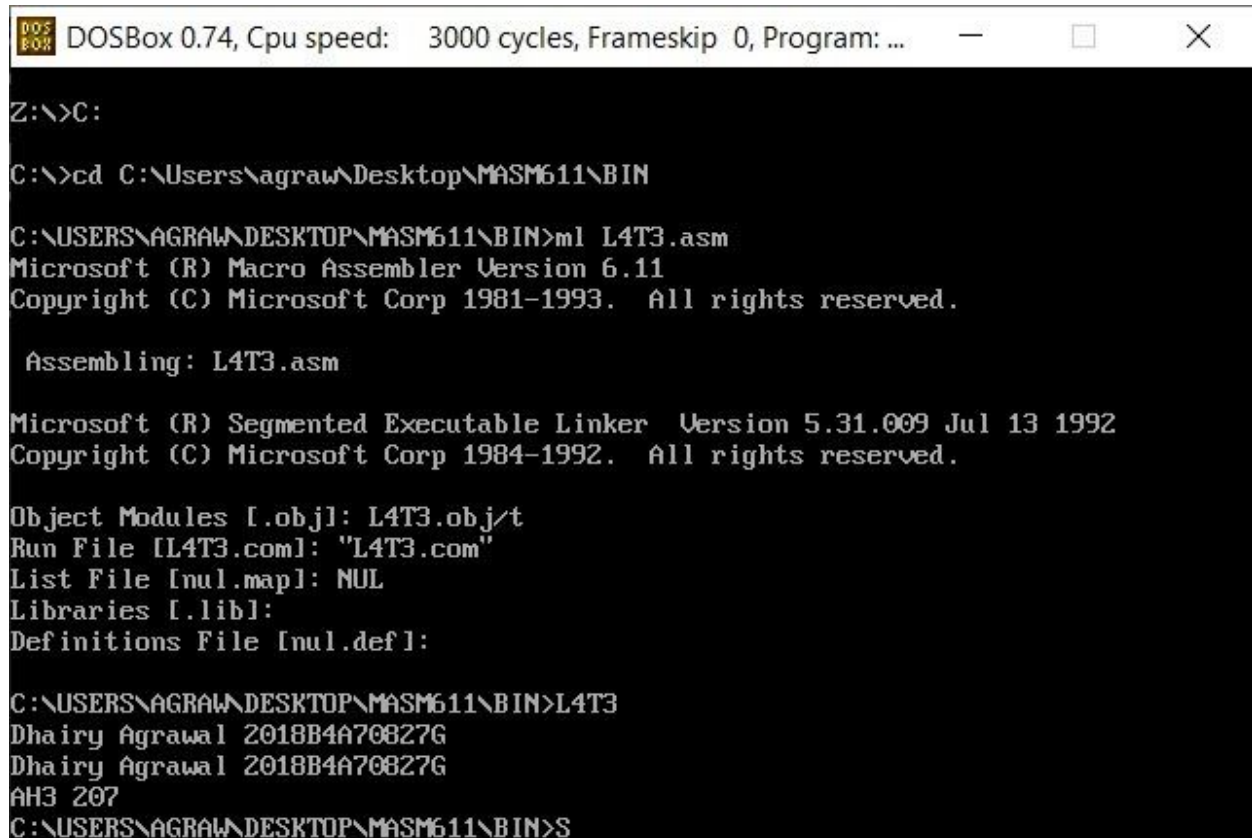
CODE:-

```
.model tiny
.data
gg db "lab4test.txt",0
var1 dw ?
dat1 db 69 dup ('$')
count dw 69
.code
.startup

            mov ah,3dh
            lea dx,gg
            mov al,02h
            int 21h
            mov var1,ax
            mov bx,var1
            mov ah,42h
            mov al,0h
            mov cx,0000
            mov dx,0000
            int 21h
            mov ah,3fh
            lea dx,dat1
            mov cx,count
            int 21h
            mov ah,09h
            lea dx,dat1
            int 21h
            mov ah,3eh
            int 21h

.exit
end
```

ScreenShot

Explanation :-

The input of the file is displayed as output.

Task 4

-Open the file you created in Task 2. Read the entire file one byte at a time and stop after you reach the end of the file. After reading the file, display the data using dos function call 09h. Close the file in the end.
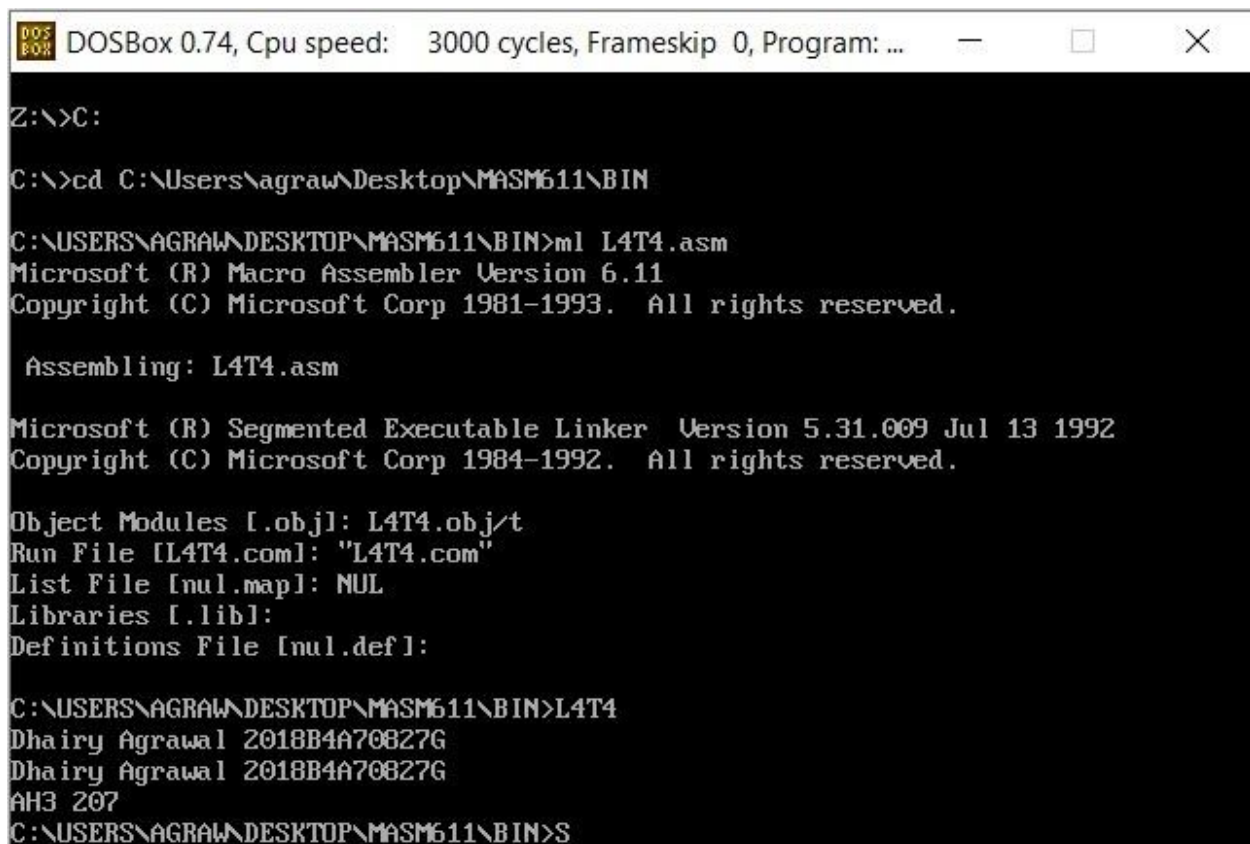
CODE:-

```
.model tiny
.486
.data
file db 'LAB4TEST.txt', 0
gg      dw ?
en      dw ?
count  dw 0
data1   db ?
.code
.startup

        lea dx,file
        mov al,2h
        mov ah,3dh
        int 21h
        mov gg,ax
        mov bx,gg
        mov al,2h
        mov cx,0h
        mov dx,0h
        mov ah,42h
        int 21h
        mov en,ax
        mov al,0h
        mov cx,0h
        mov dx,0h
        mov ah,42h
        int 21h
        mov cx,1
        lea dx,data1
x1:     mov ah,3fh
        int 21h
        inc dx
        add count,ax
```

```
        mov ax,count
        cmp ax,en
        jnz x1
        mov si,dx
        mov al,'$'
        mov [si],al
        lea dx,data1
        mov ah,09h
        int 21h
        mov ah,3eh
        int 21h
.exit
end
```

ScreenShot

Task 5

-Create a new file and write your name and ID. No. in it. Use a keyboard to input the data. Hint: Use dos function 0Ah for input from keyboard. Also try renaming the file and deleting it.
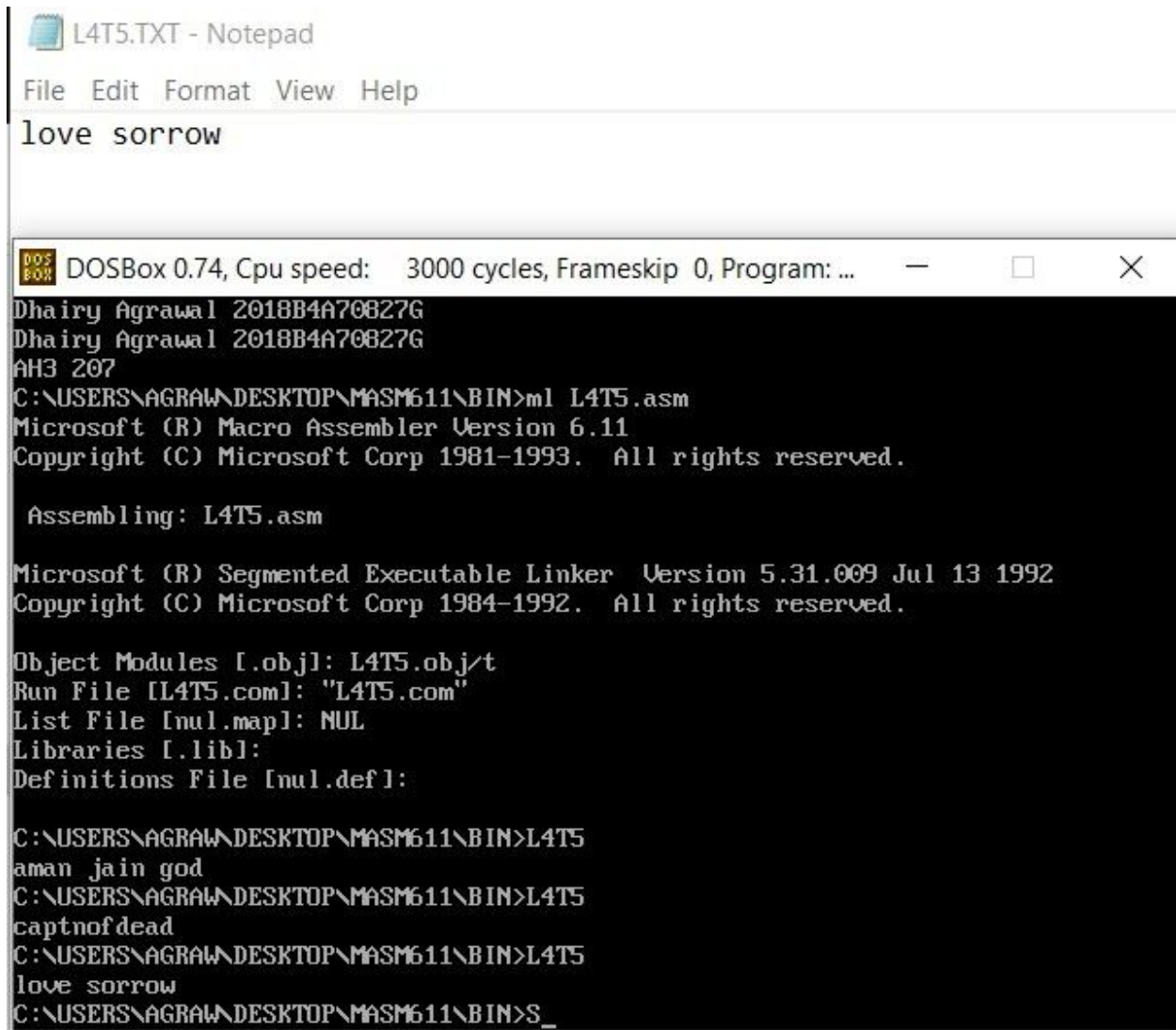
CODE:-

```
.model tiny
.486
.data
gg db "l4t5.txt",0
var1 dw ?
max db 49
act db ?
dat1 db 49 dup(?)
.code
.startup

                mov ah,3ch
                lea dx,gg
                mov cl,20h
                int 21h
                mov ah,3dh
                lea dx,gg
                mov al,02h
                int 21h
                mov var1,ax
                mov bx,var1
                mov ah,0ah
                lea dx,max
                int 21h
                mov bx,var1
                movzx cx,act
                lea dx,dat1
                mov ah,40h
                int 21h
                mov ah,3eh
                int 21h

.exit
end
```

ScreenShot

L4T5.TXT - Notepad

File Edit Format View Help

love sorrow

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: ... — □ ✕

```
Dhairy Agrawal 2018B4A70827G
Dhairy Agrawal 2018B4A70827G
AH3 207
C:\USERS\AGRAW\DESKTOP\MASM611\BIN>ml L4T5.asm
Microsoft (R) Macro Assembler Version 6.11
Copyright (C) Microsoft Corp 1981-1993.  All rights reserved.

 Assembling: L4T5.asm

Microsoft (R) Segmented Executable Linker  Version 5.31.009 Jul 13 1992
Copyright (C) Microsoft Corp 1984-1992.  All rights reserved.

Object Modules [.obj]: L4T5.obj/t
Run File [L4T5.com]: "L4T5.com"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:

C:\USERS\AGRAW\DESKTOP\MASM611\BIN>L4T5
aman jain god
C:\USERS\AGRAW\DESKTOP\MASM611\BIN>L4T5
captnofdead
C:\USERS\AGRAW\DESKTOP\MASM611\BIN>L4T5
love sorrow
C:\USERS\AGRAW\DESKTOP\MASM611\BIN>S_
```

Explanation :-

The input of the dosbox is appended in the file as displayed in output.