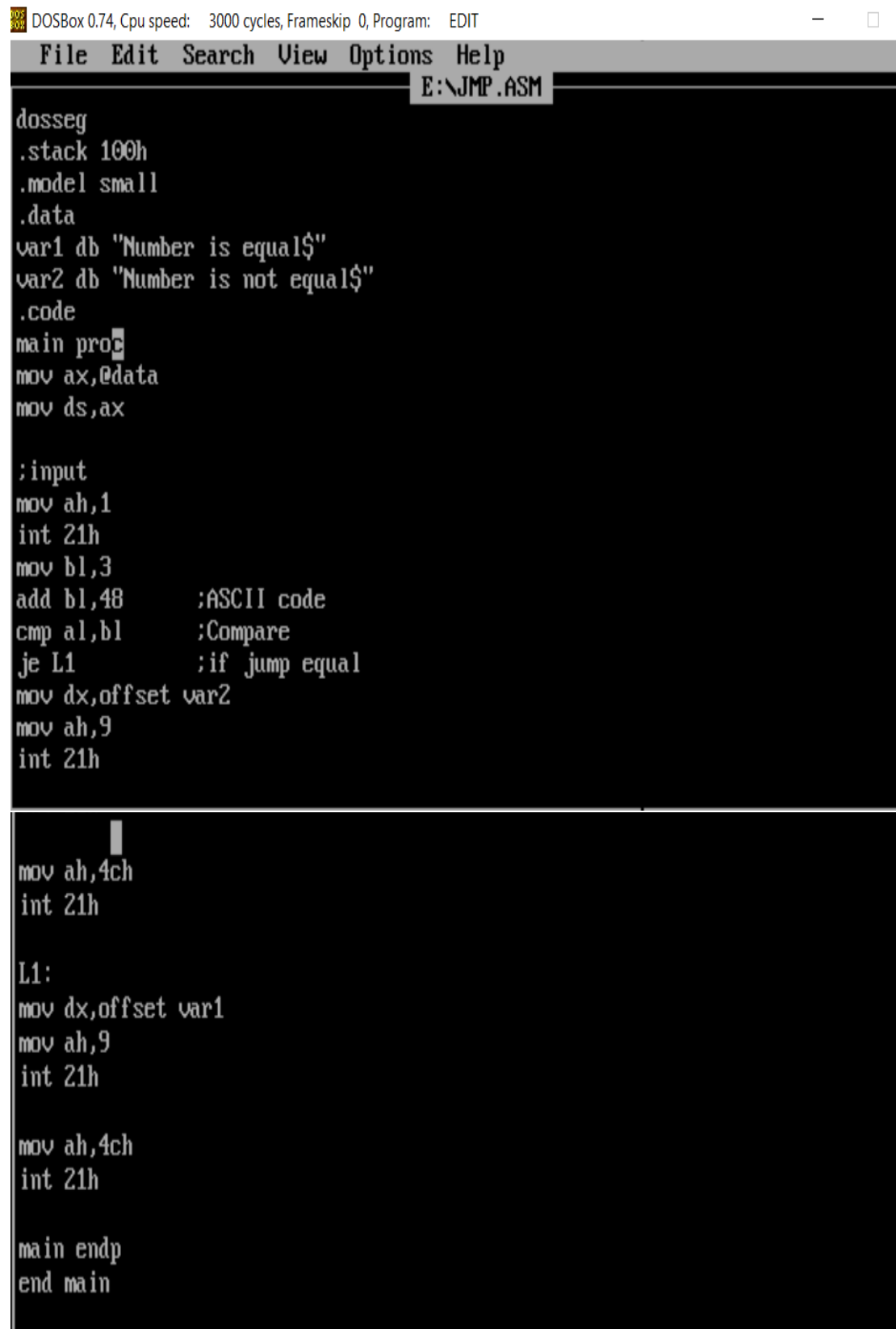


**NAME: MUHAMMAD ZOHAIB KHAN**  
**FATHER NAME: MUHAMMAD MUMTAZ**  
**KHAN**  
**SEAT NO: B21110106061**  
**CLASS: BSSE (4th SEMESTER)**  
**COURSE NAME: ASSEMBLY LANGUAGE**  
**COURSE CODE: 402**  
**DEPARTMENT: COMPUTER SCIENCE**

**Task 1: Program to print the input number is equal to or not equal to the given program number.**

**PROGRAM:**



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

File Edit Search View Options Help

E:\JMP.ASM

```
dosseg
.stack 100h
.model small
.data
var1 db "Number is equal$"
var2 db "Number is not equal$"
.code
main proc
mov ax,@data
mov ds,ax

;input
mov ah,1
int 21h
mov bl,3
add bl,48 ;ASCII code
cmp al,bl ;Compare
je L1 ;if jump equal
mov dx,offset var2
mov ah,9
int 21h

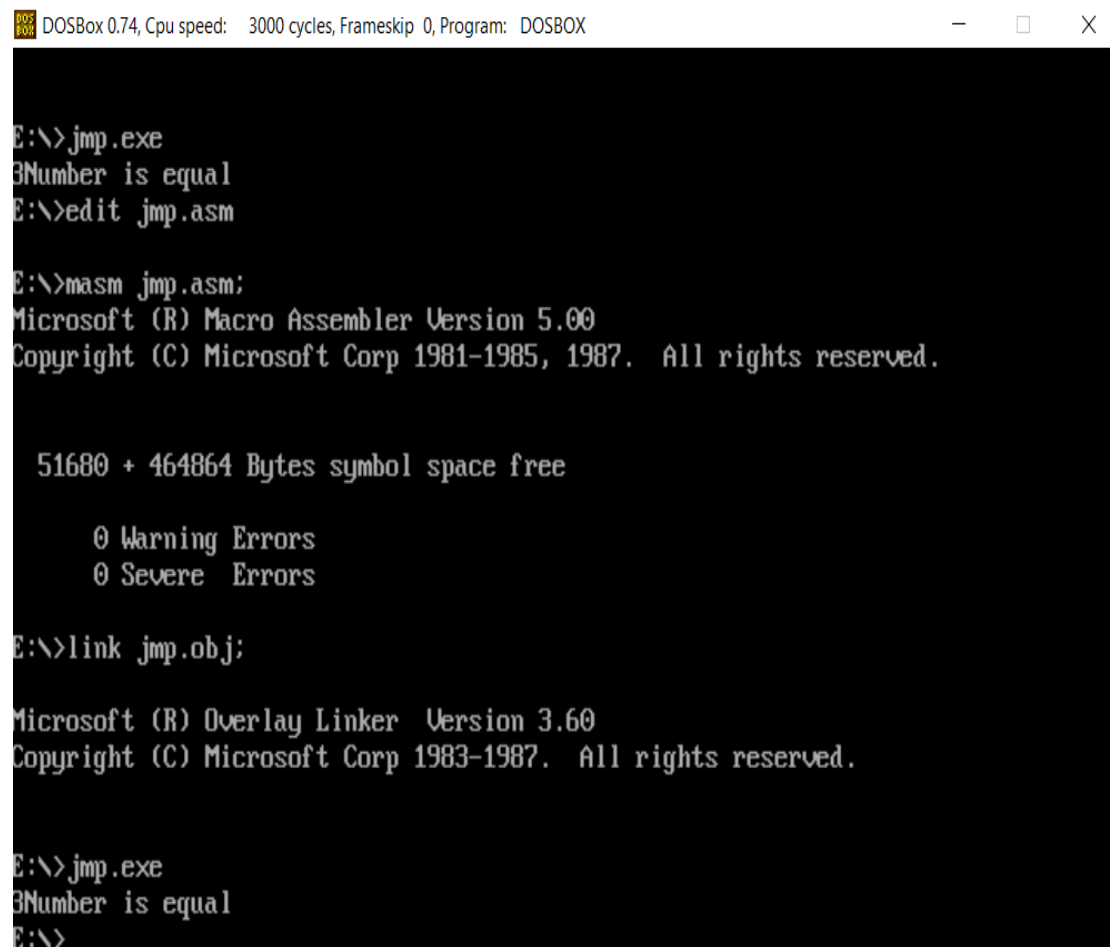
mov ah,4ch
int 21h

L1:
mov dx,offset var1
mov ah,9
int 21h

mov ah,4ch
int 21h

main endp
end main
```

## OUTPUT:

A screenshot of a DOSBox window. The title bar at the top reads "DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX". The window contains a black terminal area with white text. The text shows a sequence of commands and their outputs: running 'jmp.exe' which displays '3Number is equal', editing 'jmp.asm', assembling it with 'masm jmp.asm' (showing Microsoft Macro Assembler Version 5.00 and symbol space free), linking with 'link jmp.obj;' (showing Microsoft Overlay Linker Version 3.60), and finally running 'jmp.exe' again which displays '3Number is equal'.

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

E:\>jmp.exe
3Number is equal
E:\>edit jmp.asm

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

51680 + 464864 Bytes symbol space free

0 Warning Errors
0 Severe Errors

E:\>link jmp.obj;

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

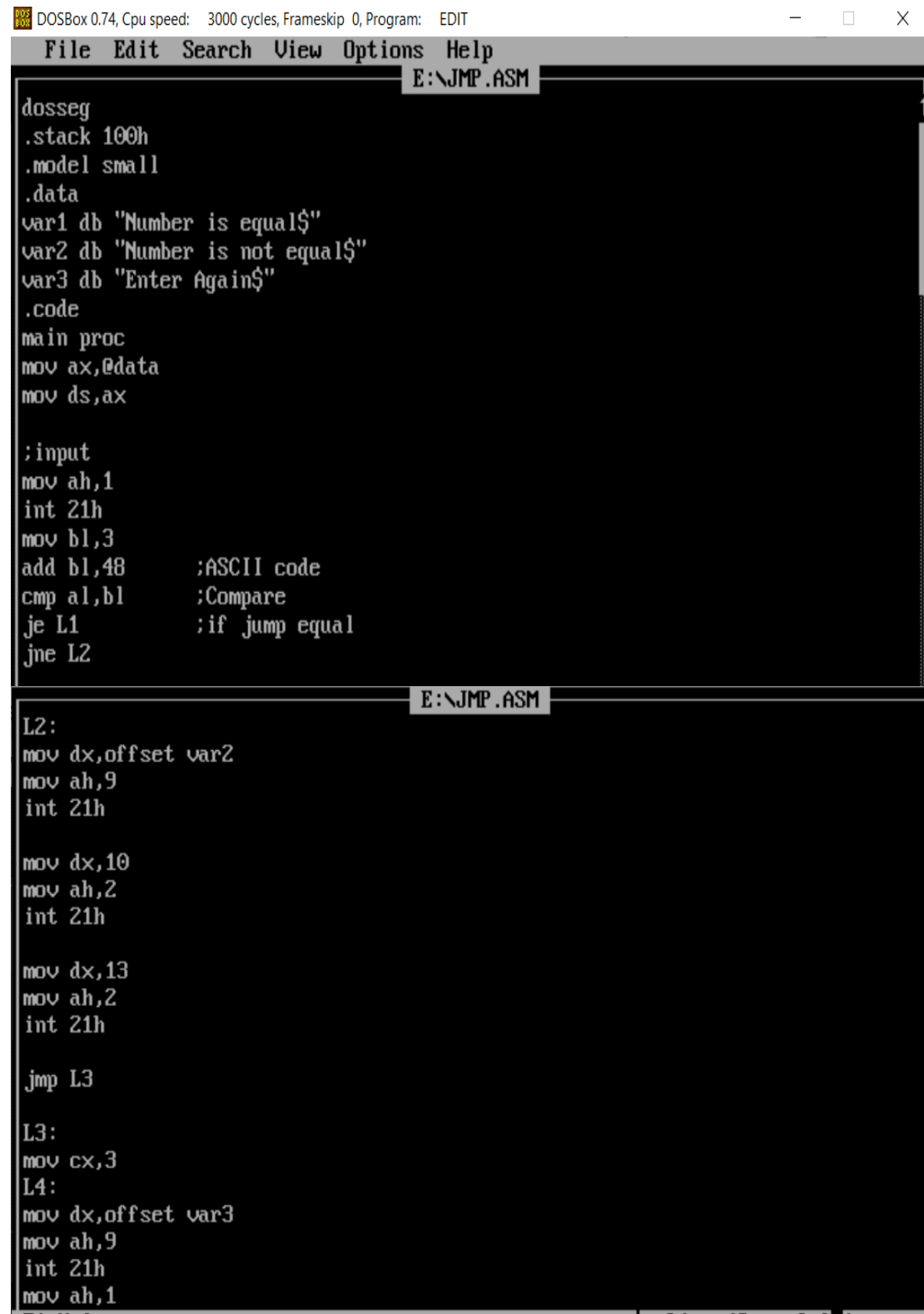
E:\>jmp.exe
3Number is equal
E:\>
```

## Task 2: Write a program to modified task 1

### Procedure:

In this program User input number and check it is equal to program number if is not equal to program number program give option to the user to perform 3 attempts to check the number

### PROGRAM:



```
dosseg
.stack 100h
.model small
.data
var1 db "Number is equal$"
var2 db "Number is not equal$"
var3 db "Enter Again$"
.code
main proc
mov ax,@data
mov ds,ax

;input
mov ah,1
int 21h
mov bl,3
add bl,48      ;ASCII code
cmp al,bl      ;Compare
je L1          ;if jump equal
jne L2

L2:
mov dx,offset var2
mov ah,9
int 21h

mov dx,10
mov ah,2
int 21h

mov dx,13
mov ah,2
int 21h

jmp L3

L3:
mov cx,3
L4:
mov dx,offset var3
mov ah,9
int 21h
mov ah,1
```

```
int 21h  
cmp al,bl  
je L1
```

```
mov dx,10  
mov ah,2  
int 21h
```

```
mov dx,13  
mov ah,2  
int 21h
```

```
loop L4
```

```
mov ah,4ch  
int 21h
```

```
L1:  
mov dx,10  
mov ah,2  
int 21h
```

```
mov dx,13  
mov ah,2  
int 21h
```

```
mov dx,offset var1  
mov ah,9  
int 21h
```

```
mov ah,4ch  
int 21h
```

```
main endp  
end main
```

# OUTPUT:

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
E:\>edit jmp.asm

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

51680 + 464864 Bytes symbol space free

0 Warning Errors
0 Severe Errors

E:\>link jmp.obj;

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

E:\>jmp.exe
5Number is not equal
Enter Again7
Enter Again8
Enter Again3
Number is equal
E:\>
```