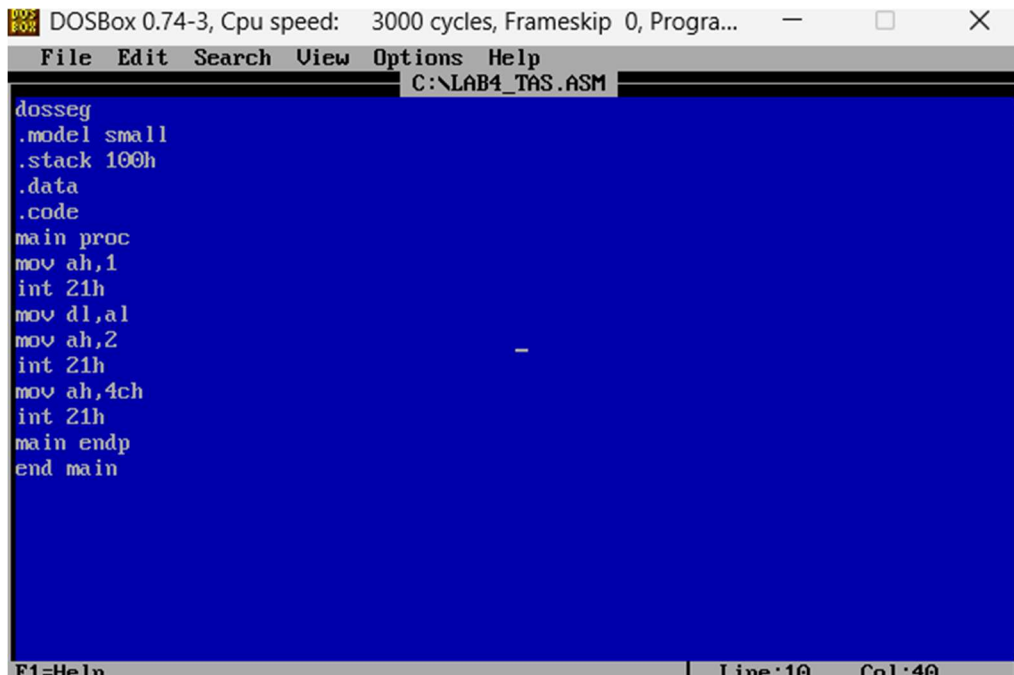


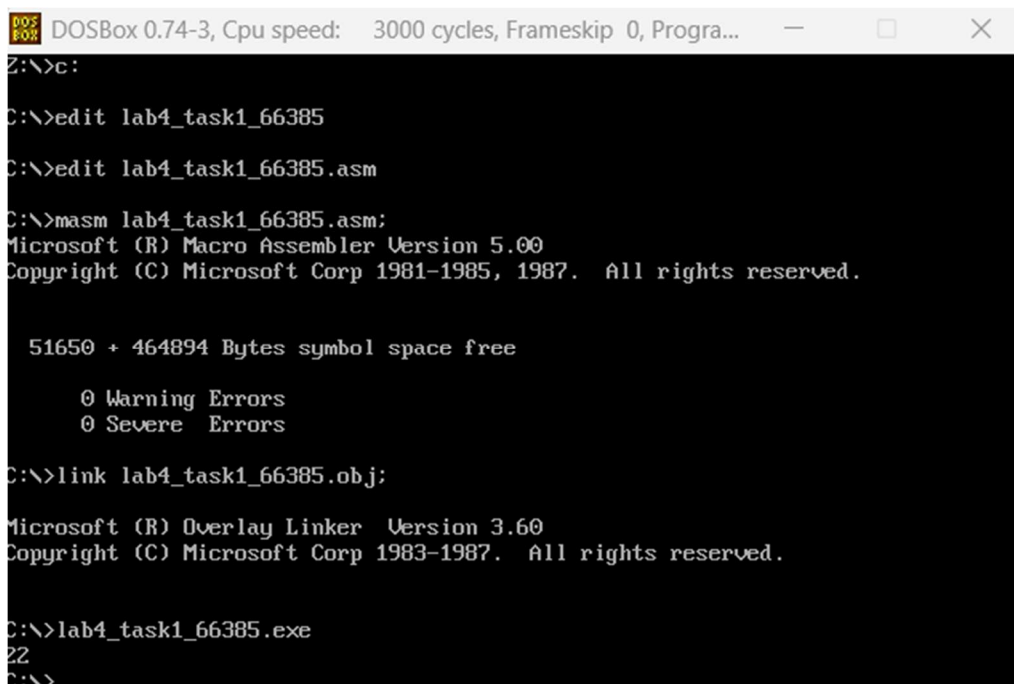
Name: Muhammad Sadeem Choudhary

Sap id: 66385

### Task 1



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
File Edit Search View Options Help
C:\LAB4_TASK.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov ah,1
int 21h
mov dl,al
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
F1=Help Line:10 Col:40
```

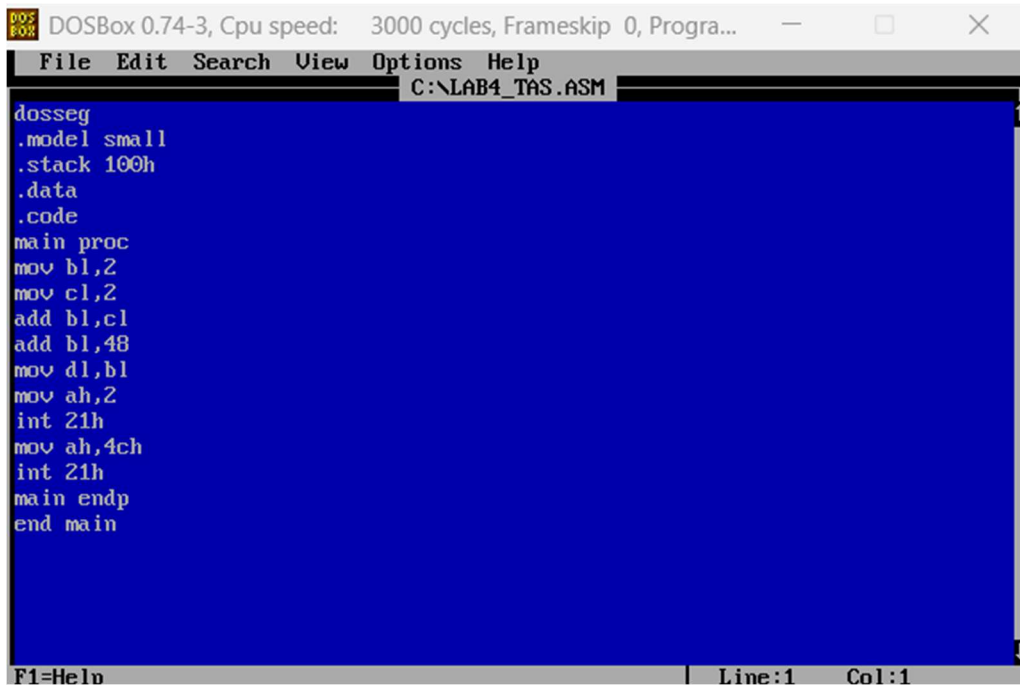


```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Z:\>c:
C:\>edit lab4_task1_66385
C:\>edit lab4_task1_66385.asm
C:\>masm lab4_task1_66385.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

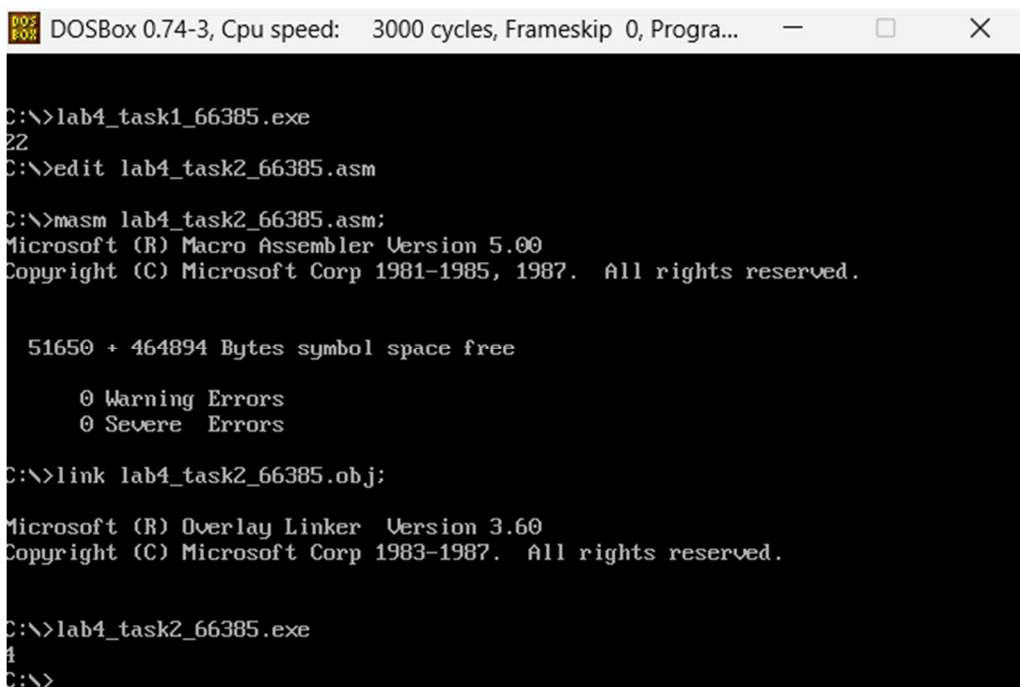
51650 + 464894 Bytes symbol space free

0 Warning Errors
0 Severe Errors
C:\>link lab4_task1_66385.obj;
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
C:\>lab4_task1_66385.exe
22
C:\>
```

### Task 2



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
File Edit Search View Options Help
C:\LAB4_TAS.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov bl,2
mov cl,2
add bl,cl
add bl,48
mov dl,bl
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
F1=Help | Line:1 Col:1
```

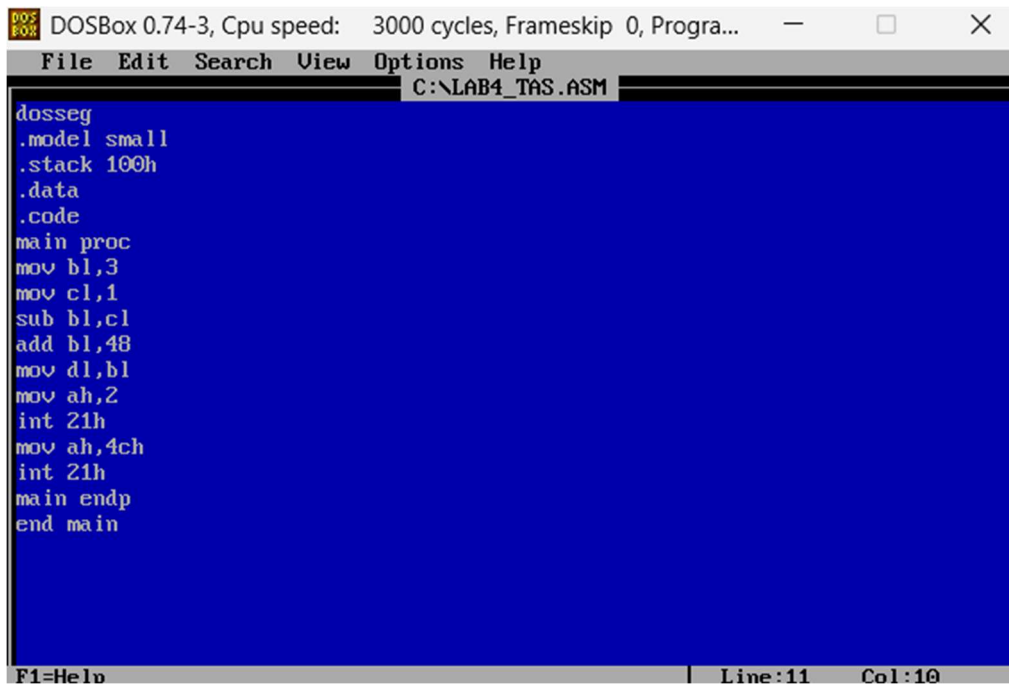


```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
C:\>lab4_task1_66385.exe
22
C:\>edit lab4_task2_66385.asm
C:\>masm lab4_task2_66385.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51650 + 464894 Bytes symbol space free

0 Warning Errors
0 Severe Errors
C:\>link lab4_task2_66385.obj;
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
C:\>lab4_task2_66385.exe
1
C:\>
```

### Task 3



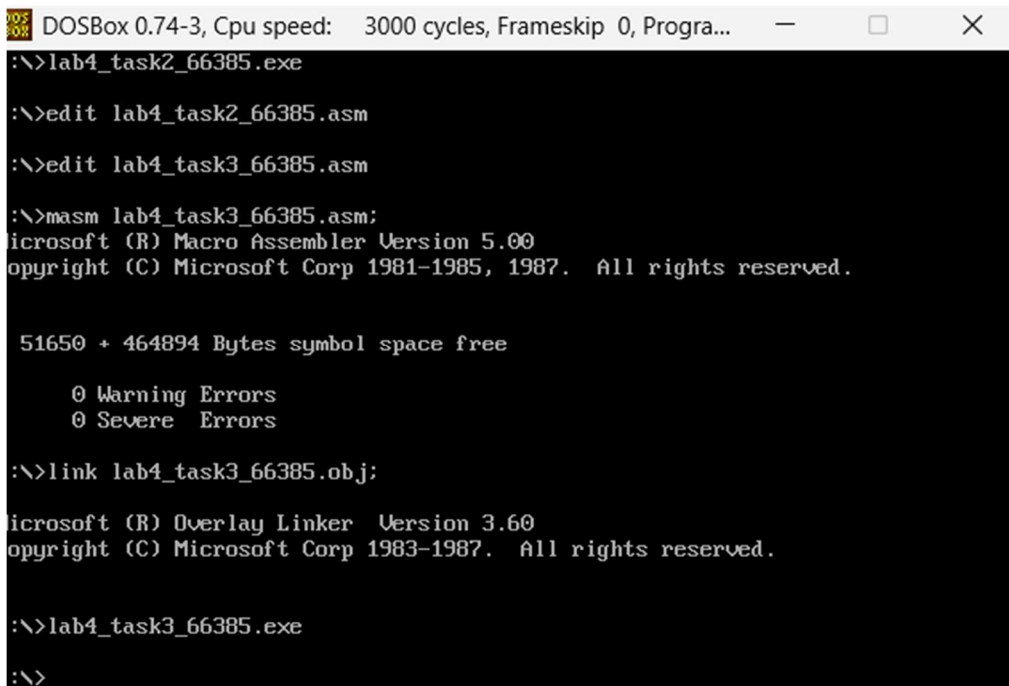
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra... — □ ×

File Edit Search View Options Help

C:\LAB4\_TAS.ASM

```
dosseg
.model small
.stack 100h
.data
.code
main proc
mov bl,3
mov cl,1
sub bl,cl
add bl,48
mov dl,bl
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
```

F1=Help | Line:11 Col:10



DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra... — □ ×

```
:>lab4_task2_66385.exe

:>edit lab4_task2_66385.asm

:>edit lab4_task3_66385.asm

:>masm lab4_task3_66385.asm;
icrosoft (R) Macro Assembler Version 5.00
opyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51650 + 464894 Bytes symbol space free

0 Warning Errors
0 Severe Errors

:>link lab4_task3_66385.obj;

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

:>lab4_task3_66385.exe

:>
```

## Task 4

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
File Edit Search View Options Help
C:\LAB4_TAS.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov ah,1
int 21h
mov dl,a1
add dl,32
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
F1=Help | Line:10 Col:10
```

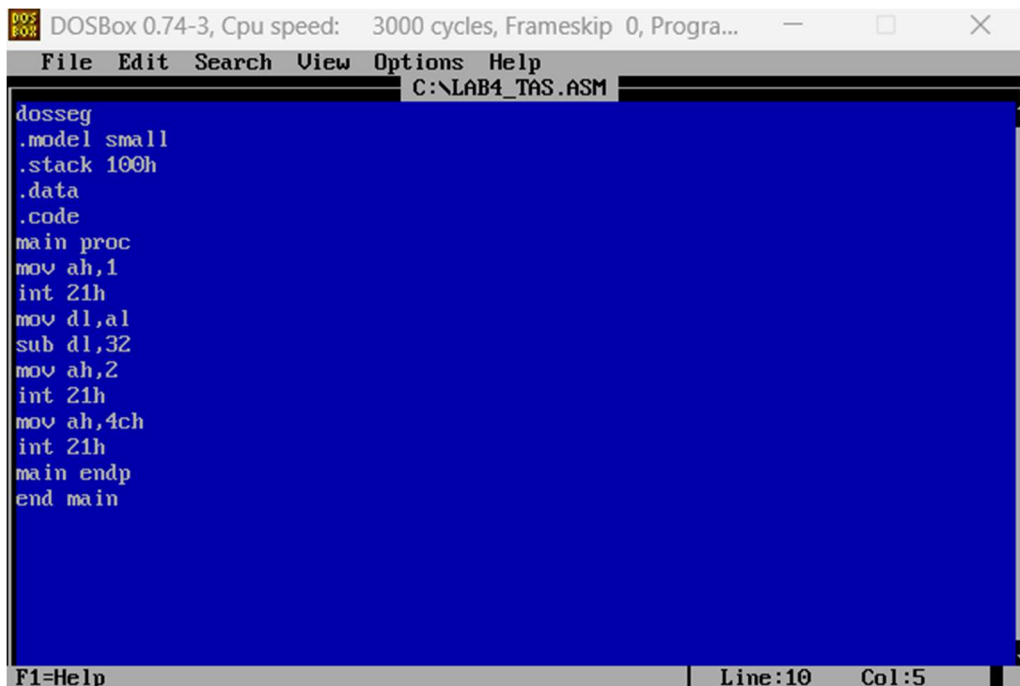
```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
C:\>lab4_task3_66385.exe
2
C:\>edit lab4_task4_66385.asm
C:\>masm lab4_task4_66385.asm:
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51650 + 464894 Bytes symbol space free

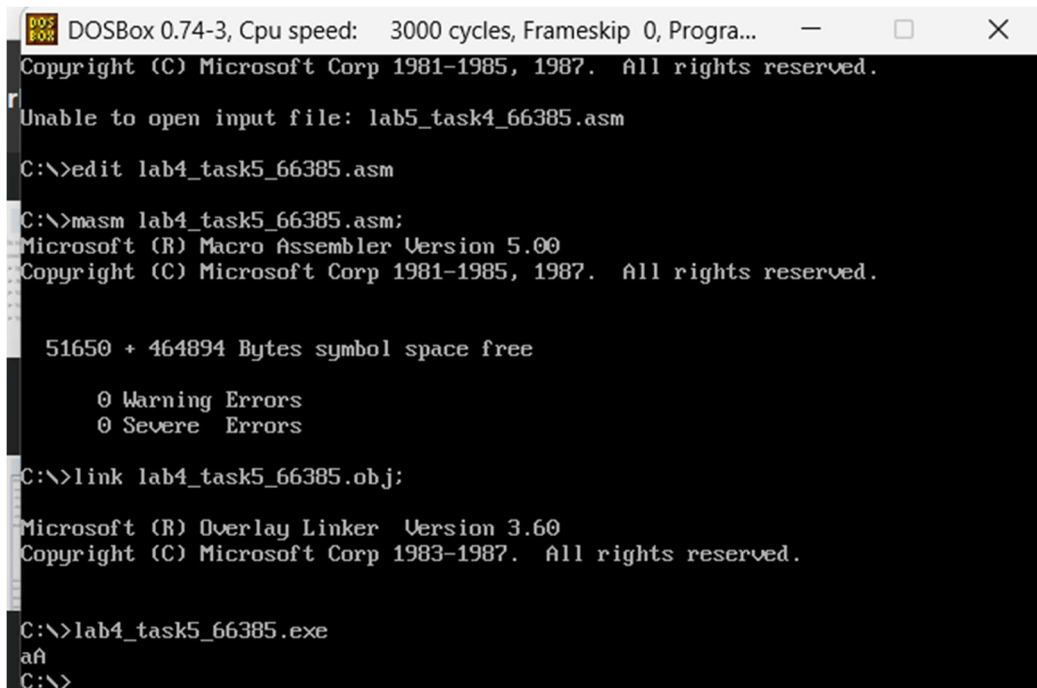
0 Warning Errors
0 Severe Errors
C:\>link lab4_task4_66385.obj:
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

C:\>lab4_task4_66385.exe
aui
C:\>lab4_task4_66385.exe
Aa
C:\>
```

## Task 5



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
File Edit Search View Options Help
C:\LAB4_TAS.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov ah,1
int 21h
mov dl,al
sub dl,32
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
F1=Help Line:10 Col:5
```



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.
Unable to open input file: lab5_task4_66385.asm
C:\>edit lab4_task5_66385.asm
C:\>masm lab4_task5_66385.asm:
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51650 + 464894 Bytes symbol space free

0 Warning Errors
0 Severe Errors
C:\>link lab4_task5_66385.obj:
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
C:\>lab4_task5_66385.exe
aA
C:\>
```

## Task 6

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
File Edit Search View Options Help
C:\LAB4_TAS.ASM
dosseg
.model small
.stack 100h
.data
msg1 db 'BS CS$'
msg2 db 'UOL$'
.code
main proc
mov ax,@data
mov ds,ax
mov dx,offset msg1
mov ah,9
int 21h
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
mov dx,offset msg2
mov ah,9
int 21h
F1=Help
Line:11 Col:8
```

```
mov ah,4ch
int 21h
main endp
end main
F1=Help
Line:22 Col:8
```

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
C:\>edit lab4_task6_66385.asm
C:\>masm lab4_task6_66385.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

lab4_task6_66385.asm(9): warning A4031: Operand types must match
lab4_task6_66385.asm(11): warning A4031: Operand types must match
lab4_task6_66385.asm(20): warning A4031: Operand types must match

51610 + 464934 Bytes symbol space free

3 Warning Errors
0 Severe Errors

C:\>link lab4_task6_66385.obj;
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

C:\>lab4_task6_66385.exe
BS CS
UOL
C:\>
```

## Task 7

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\LAB4_LAB.ASM

dosseg
.model small
.stack 100h
.data
msg1 db 'SADEEM$'
msg2 db '66385$'
msg3 db 'COAL$'
.code
main proc
mov ax,@data
mov ds,ax
mov dx,offset msg1
mov ah,9
int 21h
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
mov dx,offset msg2
mov ah,9
F1=Help Line:1 Col:1
```

```
int 21h
mov dx,offset msg2
mov ah,9
int 21h
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
mov dx,offset msg3
mov ah,9
int 21h

mov ah,4ch
int 21h
main endp
end main
F1=Help Line:17 Col:1
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
lab4_labtask_66385.asm(22): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(24): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(25): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(27): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(28): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(30): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(31): warning A4057: Illegal size for operand
lab4_labtask_66385.asm(34): warning A4057: Illegal size for operand

51600 + 464944 Bytes symbol space free

17 Warning Errors
0 Severe Errors

C:\>link lab4_labtask_66385.obj;

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

C:\>lab4_labtask_66385.exe
SADEEM
66385
COAL
C:\>
```

## Task 8

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\LAB4_LAB.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov ah,1
int 21h
mov bl,a1
sub bl,48
mov ah,1
int 21h
mov cl,a1
sub cl,48
add bl,cl
add bl,48
mov dl,bl
mov ah,2
int 21h

mov ah,4ch
int 21h
F1=Help Line:1 Col:1
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
C:\>lab4_labtask2_66385.exe
22ff
C:\>edit lab4_labtask2_66385.asm
C:\>masm lab4_labtask2_66385.asm:
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51640 + 464904 Bytes symbol space free

0 Warning Errors
0 Severe Errors
C:\>link lab4_labtask2_66385.obj:
Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
C:\>lab4_labtask2_66385.exe
112
C:\>lab4_labtask2_66385.exe
```