

LAB TASK 1:

```
DOSBox DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: ... — X
CopDrive C is mounted as local directory c:/mp\
--- Z:\>c:
CON C:\>edit izhar_67011.asm

C:\>masm izhar_67011.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

      51602 + 464942 Bytes symbol space free

      0 Warning Errors
      0 Severe Errors

C:\>link izhar_67011.obj;

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

C:\>izhar_67011.exe
abc
C:\>s
```

```
FILE EDIT SEARCH VIEW U
Sdosseg
.model small
.stack 100h
.data
array db 'a','b','c'
.code
main proc
mov ax,@data
mov ds,ax
mov si,offset array
mov cx,3
l1:
mov dx,[si]
mov ah,2
int 21h
inc si
loop l1
mov ah,4ch
int 21h
main endp
end main
```

TASK 2:

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

File Edit Search View Options Help C:\67011_T2.ASM

```
dosseg
.model small
.stack 100h
.data
array db 100 dup('$')
.code
main proc
mov ax,@data
mov dx,ax
mov si,offset array
l1:
mov ah,1
int 21h
cmp al,13
je program
mov [si],al
inc si
jmp l1
program:
mov dx,offset array
mov ah,9
int 21h S_
```

```
C:\>edit 67011_t2.asm

C:\>masm 67011_t2.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51648 + 464896 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link 67011_t2.obj;

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

C:\>67011_t2.exe
hello
```

TASK 3:

```
dosseg
.model small
.stack 100h
.data
.code
main proc
    mov ax,'1'
    mov bx,'2'
    push ax
    push bx
    pop ax
    pop bx
    mov dx,ax
    mov ah,2
    int 21h
    mov dx,bx
    mov ah,2
    int 21h
    mov ah,4ch
    int 21h
main endp
end mainS_
F1=Help
```

```
tôê♦Fđ≤|| + =!{|L=!
C:\>edit 67011_t2.asm
C:\>edit 67011_t3.asm

C:\>masm 67011_t3.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

      51690 + 464854 Bytes symbol space free

          0 Warning Errors
          0 Severe Errors

C:\>link 67011_t3.obj;

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

C:\>67011_t3.exe
21
```

TASK 4:

```
C:\>67011_t3.exe
21
C:\>edit 67011_t4.asm

C:\>masm 67011_t4.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

      51612 + 464932 Bytes symbol space free

          0 Warning Errors
          0 Severe Errors

C:\>link 67011_t4.obj;

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

C:\>67011_t4.exe
hzi
```

```
File Edit Search View Opt
Sdosseg
.model small
.stack 100h
.data
string db 'izhar'
.code
main proc
mov ax,@data
mov ds,ax
mov si,offset string
mov cx,3
l1:
mov bx,[si]
push bx
inc si
loop l1
mov cx,3
l2:
pop dx
mov ah,2
int 21h
loop l2
F1=Help
```

```
|| mov cx,3  
|| l1:  
|| mov bx,[si]  
|| push bx  
|| inc si  
|| loop l1  
|| mov cx,3  
|| l2:  
|| pop dx  
|| mov ah,2  
|| int 21h  
|| loop l2  
|| mov ah,4ch  
|| int 21h  
|| main endp  
|| end main
```

TASK 5:

```
-----  
|| mov ax,'1'  
|| mov bx,'2'  
|| push ax  
|| push bx  
|| pop ax  
|| pop bx|
```

TASK 6:

```
C:\>masm 67011_t6.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

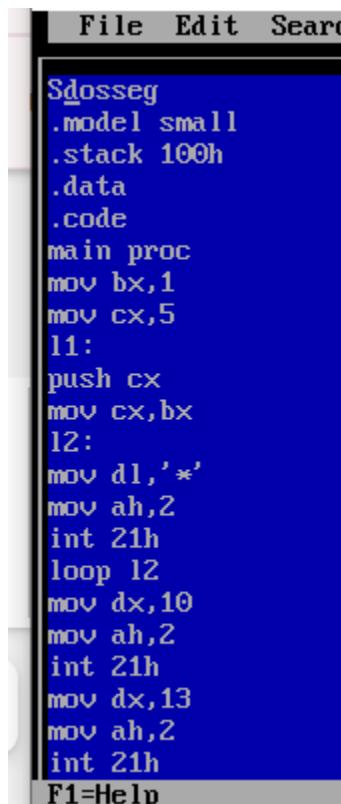
51690 + 464854 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link 67011_t6.obj;

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

C:\>67011_t6.exe
*
**
***
****
*****
```



A screenshot of a DOS terminal window titled "File Edit Search". The window displays assembly language code. The code starts with `Sdosseg`, followed by `.model small`, `.stack 100h`, `.data`, and `.code`. It defines a `main proc` block. Inside the main block, there is a loop starting at label `l1:`. The loop contains `push cx`, `mov cx,bx`, and `l2:`. At label `l2:`, it performs `mov dl,'*'`, `mov ah,2`, and `int 21h`. After the `int 21h`, it loops back to `l2:` via `loop l2`. Finally, it exits the `main` procedure with `mov dx,10`, `mov ah,2`, `int 21h`, `mov dx,13`, `mov ah,2`, and `int 21h`.

```
Sdosseg
.model small
.stack 100h
.data
.code
main proc
    mov bx,1
    mov cx,5
    l1:
    push cx
    mov cx,bx
    l2:
    mov dl,'*'
    mov ah,2
    int 21h
    loop l2
    mov dx,10
    mov ah,2
    int 21h
    mov dx,13
    mov ah,2
    int 21h
```

```
11:  
push cx  
mov cx,bx  
12:  
mov dl,'*'  
mov ah,2  
int 21h  
loop 12  
mov dx,10  
mov ah,2  
int 21h  
mov dx,13  
mov ah,2  
int 21h  
inc bl  
pop cx  
loop 11  
mov ah,4ch  
int 21h  
main endp  
end main
```

TASK 7:

```
dosseg  
.model small  
.stack 100h  
.data  
.code  
main proc  
mov ax,0data  
mov ds,ax  
mov bx,1  
mov cx,5  
loop 11:  
push cx  
mov cx,bx  
mov dl,'a'  
loop 12:  
mov ah,2  
int 21h  
mov dl,' '  
int 21h  
inc dl  
loop 11  
mov dl,1S0  
F1=Hello
```

```
mov dl,'a'
loop 12:
mov ah,2
int 21h
mov dl,' '
int 21h
inc dl
loop 11
mov dl,10
mov ah,2
int 21h
mov dl,13
mov ah,2
int 21h
inc bl
pop cx
loop 12
mov ah,4ch
int 21h
main endp
end main
```

C:\>edit 67011_t6.asm

C:\>edit 67011_t7.asm

C:\>masm 67011_t7.asm;

Microsoft (R) Macro Assembler Version 5.00

Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

67011_t7.asm(11): error A2009: Symbol not defined: L1

67011_t7.asm(15): error A2009: Symbol not defined: L2

67011_t7.asm(21): error A2009: Symbol not defined: L1

67011_t7.asm(30): error A2009: Symbol not defined: L2

51652 + 464892 Bytes symbol space free

0 Warning Errors

4 Severe Errors

C:\>edit 67011_t7.asm

C:\>S_

