

Task 1:

```
.model small
.stack
.data
stri db 'Hassaan Labs', 0
.code
main proc
mov ax, @data
mov ds, ax
mov dx, 0
mov dx, offset stri
call revstr
mov ah, 4ch
int 21h
main endp
```

```
revstr proc
mov cx, lengthof stri
mov si, offset stri
```

```
l1:
mov dl, [si]
mov dh, 0
push dx
inc si
loop l1
```

```
mov cx, lengthof stri
```

```
l2:
pop dx
mov ah, 02
int 21h
dec si
loop l2
ret
revstr endp
```

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

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
mode
L10Q1.asm(18): error A2085: instruction or register not accepted in current CPU
mode
L10Q1.asm(27): error A2085: instruction or register not accepted in current CPU
mode
L10Q1.asm(11): error A2006: undefined symbol : revst

C:\>ml L10Q1.asm
Microsoft (R) Macro Assembler Version 6.11
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Assembling: L10Q1.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
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Object Modules [.obj]: L10Q1.obj
Run File [L10Q1.exe]: "L10Q1.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:

C:\>l10q1
_sbaL naassaH
C:\>
```

## TASK 2:

mymacro macro char,num

mov dl,char

mov ah,02

int 21h

mov dl,0

mov dl,num

add dl,48

mov ah,02

int 21h

endm

.model small

.stack

.data

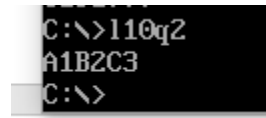
.code

mymacro 'A',1

mymacro 'B',2

mymacro 'C',3

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



### TASK 3:

```
mymacro macro name1,sec1
mov dx,0
lea dx, name1
mov ah,09h
int 21h
MOV dl, 10
MOV ah, 02h
INT 21h
MOV dl, 13
MOV ah, 02h
INT 21h
mov dx,0
lea dx, sec1
mov ah,09h
int 21h
endm
```

```
.model small
.stack
.data
name1 db 'Hassaan Oumair $'
sec1 db 'I191777 $'
.code
main proc
MOV AX,@DATA
MOV DS,AX
```

```
mymacro name1,sec1
main endp
```

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

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
C:\>l10q3
Hassaan Oumair
I191777
C:\>l10q2
A1B2C3
C:\>ml L10Q3.asm
Microsoft (R) Macro Assembler Version 6.11
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    Assembling: L10Q3.asm

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
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Object Modules [.obj]: L10Q3.obj
Run File [L10Q3.exe]: "L10Q3.exe"
List File [nul.map]: NUL
Libraries [.lib]:
Definitions File [nul.def]:
LINK : warning L4038: program has no starting address

C:\>l10q3
Hassaan Oumair
I191777
C:\>
```

#### TASK 4:

C\_string Macro char,num

Mov Cx,num

Mov Dx,char

L1:

Mov Ah,02

INT 21H

INC Dx

Loop L1

EndM

Include l10q4.inc

.Model Small

.Stack 100H

.Data

.Code

C\_string 'A',26

Mov Ah,4ch

INT 21H

End



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



```
Z:\>mount c: c:\masm615\bin
Drive C is mounted as local directory c:\masm615\bin\
```

```
Z:\>c:
```

```
C:\>ml lq4.asm
```

```
Microsoft (R) Macro Assembler Version 6.11
```

```
Copyright (C) Microsoft Corp 1981-1993. All rights reserved.
```

```
Assembling: lq4.asm
```

```
Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
```

```
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```

```
Object Modules [.obj]: lq4.obj
```

```
Run File [lq4.exe]: "lq4.exe"
```

```
List File [nul.map]: NUL
```

```
Libraries [.lib]:
```

```
Definitions File [nul.def]:
```

```
LINK : warning L4038: program has no starting address
```

```
C:\>lq4
```

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
```

```
C:\>
```