

EXPERIMENT N0-5

AIM: Write ALP to identify the string is palindrome or not.

CODE:

DATA SEGMENT

MSG DB "ENTER STRING:\$"

MSG1 DB 0AH, "STRING IS PALINDROME\$"

MSG2 DB 0AH, "STRING IS NOT PALINDROME\$"

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE, DS:DATA

START: MOV AX,DATA

MOV DS, AX

MOV DX, OFFSET MSG

MOV AH, 09H

INT 21H

MOV CL, 00H

MOV DI, 2000H

MOV SI, 1000H

UP: MOV AH, 01H

INT 21H

MOV [SI], AL

MOV [DI],AL

INC SI

INC DI

INC CL

CMP AL, 0DH

```
JNZ UP
MOV SI, 1000H
SUB DI, 02H
DEC CL
```

```
UP1: MOV BL, [SI]
CMP BL, [DI]
JNZ NOTPAL
INC SI
DEC DI
DEC CL
JZ DOWN
JMP UP1
NOTPAL: MOV DX, OFFSET MSG2
MOV AH, 09H
INT 21H
JMP EX
```

```
DOWN: MOV DX, OFFSET MSG1
MOV AH, 09H
INT 21H
```

```
EX: MOV AH, 4CH
INT 21H
```

```
CODE ENDS
END START
```

OUTPUT:

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
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Invoking: ML.EXE /I. /Zm /c /Ta exp5.asm

Microsoft (R) Macro Assembler Version 6.11
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Assembling: exp5.asm

C:\MASM\BIN>link exp5.obj

Microsoft (R) Segmented Executable Linker Version 5.31.009 Jul 13 1992
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Run File [exp5.exe]:
List File [nul.map]:
Libraries [libl]:
Definitions File [nul.def]:
LINK : warning L4021: no stack segment

C:\MASM\BIN>exp5
ENTER STRING:madam

STRING IS PALINDROME
C:\MASM\BIN>
```

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
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Invoking: ML.EXE /I. /Zm /c /Ta exp5.asm

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Assembling: exp5.asm

C:\MASM\BIN>link exp5.obj

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Run File [exp5.exe]:
List File [nul.map]:
Libraries [libl]:
Definitions File [nul.def]:
LINK : warning L4021: no stack segment

C:\MASM\BIN>exp5
ENTER STRING:harsh

STRING IS NOT PALINDROME
C:\MASM\BIN>
```