

11/11/2020

## LAB PROGRAM - 4

Q. To Check if User input String is a Palindrome

A. • MODEL SMALL

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

• DATA

MSG1 DB 0DH, 0AH, "ENTER A STRING: - \$"

MSG2 DB 0DH, 0AH, "ENTERED STRING IS PALINDROME \$"

MSG3 DB 0DH, 0AH, "ENTERED STRING IS NOT A PALINDROME \$"

STR DB 10H DUP(0)

REVSTR DB 10H DUP(0)

LEN DW 0

• CODE

MOV AX, @DATA

MOV DS, AX

DISPLAY MSG1

MOV SI, 0DH

BACK1: MOV AH, 01H

INT 21H

CMP AL, 01H

JZ NEXT

MOV STR[SI], AL

INC SI

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INC LEN

JMP BACK1

NEXT: MOV SI, 00H  
MOV DI, 00H  
ADD DI, LEN  
DEC DI  
MOV CX, LEN

BACK2: MOV AL, STR[SI]  
MOV REVSTR[DI], AL  
INC SI  
DEC DI  
← LOOP BACK2

MOV CX, LEN  
MOV SI, 00H  
MOV DI, 00H  
CLD

BACK3: MOV BL, STR[SI]  
CMP BL, REVSTR[DI]  
JNZ NOTPALI  
LOOP BACK3  
DISPLAY MSG2  
JMP LAST

NOTPALI: DISPLAY MSG3

LAST: MOV AH, 4CH

INT 21H

END