

MP-MC LAB (Prog 5)

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WAP to check whether a string is Palindrome/not

• 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 not 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, 00h

back1: mov ah, 01h ; input string
int 21H

cmp al, 0dh

jz next

mov str[si], al ; (entered character moved into
str[00] position)

inc si

inc len ; initially len = 0

jmp back1

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next: mov si, 00h
      mov di, 00h
      add di, len ; di = 00 + 09 = 9
      dec di      ; di = 8 (string of length 9 has index 0 to 8)
      mov cx, len ; cx = 9.

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back2: mov al, str[si] , a ← str[00] = value 'm'.
      mov revstr[di], al ; revstr[8] ← a (ie 'm')
      inc si
      dec di

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loop back2 ; it will loop 9 times

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mov cx, len ; cx = 9
mov si, 00h
mov di, 00h
cld

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back3: mov bl, str[si]
      cmp bl, revstr[di]
      jnz notpali
      loop back3
      display msg2
      jmp last

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notpali: display msg3

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last: mov ah, 4ch
      int 21h

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end

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