

; Program :: Reverse a given string and check whether it
; is a palindrome or not.

.model small

display macro msg
lea dx, msg
mov ah, 09h
int 21h

endm

.data

msg1 db 0dh, 0ah, "Enter string : : \$"

msg2 db 0dh, 0ah, "Reverse string : : \$"

msg3 db 0dh, 0ah, "Input string is a palindrome. \$"

msg4 db 0dh, 0ah, "Input string is not a palindrome string. \$"

string db 80h dup(?)

rstring db 80h dup(?)

.code

start : mov ax, @data
mov ds, ax
display msg1

; Take the string from keyboard character by character.

mov si, offset string

~~mov~~ xor cl, cl

gain: mov ah, 01

int 21h

cmp al, 0dh

je next

mov [si], al

inc si

inc cl

0 = 0 zero -

0 = 0 alhabet.

jump again

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next: mov [si], byte ptr '$'  
; string input over  
dec si  
mov ch, cl  
; Reverse the string and store in Rstring  
mov di, offset rstring
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back: mov al, [si]  
mov [di], al  
dec si  
inc di  
dec ch  
jnz back  
mov [di], byte ptr '$'  
display msg2  
display rstring  
mov si, offset rstring  
mov di, offset rstring
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ag: mov al, [si]  
cmp al, [di]  
jne fail  
inc si  
inc di  
dec cx  
jnz success  
jmp ag
```

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fail: display msg3  
jmp final
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success: display msg3  
final: mov ah, 4ch  
int 21h  
end
```