checking if a string is a palindrome or not

```
.model small
display macro msg
        lea dx, msg
        mov ah, 09h
        int 21h
end m
.data
msg1 db 0dh, 0ah, " Enter String : $ "
msg2 db 0dh, 0ah, " Reverse string : $ "
msg3                    " Input string is a palindrome $ "
msg4                    " Input string is not a palindrome $"
string db 80h Dup (?)
Rstring db 80h Dup (?)
.code
Start :  mov  ax, @data
         mov  ds, ax
         display msg1
         ; take the string from keyboard character by character.
         mov SI, offset string
         XOR cl, cl
Again :  mov ah, 01h
         int 21h
         cmp al, 0dh
         je next
         mov [SI], Al
         inc SI
         inc CL
         jmp again
NEXT :  mov [SI], Byte ptr '$'
        ; string input over.......
        dec SI
        mov ch, cl
```

```asm
                ; Reverse the string and store in Rstring   mov di,
                     offset rstring
Back :    mov  al, [SI]
              mov  [DI], al
              dec  SI
              inc  DI
              dec  ch
              jnz  Back
              mov  [DI], byte ptr '$'
             -Display msg 2
              Display Rstring
              mov  SI, offset string
AG :  mov  Al, [SI]
          cmp  Al, [DI]
          jnz  fail
          inc  SI
          inc  DI
          dec  cx
          jz   success
          jmp  AG
FAIL :  Display msg 4
           jmp final
SUCCESS :  Display msg 3
FINAL :  mov  ah, 4ch
            int 21h
   END .
```

```
C:\MASM>pal

Enter string: eml
Reverse string: lem
Input string is not a palindrome.
C:\MASM>edit pal.asm

C:\MASM>pal

Enter string: madam
Reverse string: madam
Input string is a palindrome.
C:\MASM>
```