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C:\MASM\PAL.ASM

```
.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 palindrome. $"
msg4 db 0dh, 0ah, "input string is not a palindrome string. $"
string db 80h dup(?)
rstring db 80h dup(?)

.code
start:mov ax, 0data
      mov ds, ax
      display msg1
      ;take the string from keyboard character by character
      mov si,offset string
      xor cl, cl
again:mov ah,01h
```

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```
    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 '$'
       ;string input over....
       dec si
       mov ch, cl
       ;reverse the string and store in rstring
       mov di, offset rstring
back:  mov al, [si]
       mov [di], al
       dec si
       inc di
       dec ch
       jnz back
       mov [di], byte ptr '$'
```


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```
    jnz back
    mov [dil, byte ptr '$'
    display msg2
    display rstring
    mov si, offset string
    mov di, offset rstring
ag:  mov al, [sil]
    cmp al, [dil]
    jne fail
    inc si
    inc di
    dec cx
    jz sucess
    jmp ag
fail: display msg4
    jmp final
sucess: display msg3
final: mov ah, 4ch
    int 21h
end start
```

ENTER STRING: bmsce

REVERSE STRING: ecsmb

INPUT STRING IS NOT A PALINDROME STRING.

C:\MASM>pal

ENTER STRING: madam

REVERSE STRING: madam

INPUT STRING IS PALINDROME.

C:\MASM>

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C:\MASM\ASCII.ASM

```
.model small
.data
msg1 db 0dh,0ah,"enter alphanumeric character $"
res db 02 dup(0)
.code
mov ax,@data
mov ds,ax
lea dx,msg1
call disp
mov ah,01h
int 21h
mov bl,al
mov cl,4          ; :3a=3341
shr al,cl         ;al=3a    al=03 bl=3a
cmp al,0ah        ;bl=3a    30    0f
jc digit          ;        33    0a
add al,07h        ;41
digit: add al,30h
      mov res,al
      and bl,0fh
      cmp bl,0ah
      jc digit1
```



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C:\MASM\ASCII.ASM

```
add al,07h                ;41
digit: add al,30h
      mov res,al
      and bl,0fh
      cmp bl,0ah
      jc digit1
      add bl,07h
digit1: add bl,30h
      mov res+1,bl

      mov ah,00h
      mov al,03h          ;text mode
      int 10h

      mov ah,02h          ;set the cursor pos
      mov bh,00h          ;page number
      mov dh,0ch          ;row(00 is top
      mov dl,28h          ;column val
      int 10h

      mov res+2,'$'
      lea dx,res
```


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C:\MASM\ASCI.ASM

```
mov ah,02h    ;set the cursor pos
mov bh,00h    ;page number
mov dh,0ch    ;row(00 is top
mov dl,28h    ;column val
int 10h
```

```
mov res+2,'$'
lea dx,res
call disp
mov ah,4ch
int 21h
```

```
disp proc near
mov ah,09h
int 21h
ret
disp endp
end
```

