

⇒ To check whether the entered string is Palindrome or 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 not palindrome $"
msg3 db 0dh, 0ah, "Entered string is not palindrome $"
str db 10h dup(0)
next db 10h dup(0)
len dw 0
```

.code

```
mov ax, @data
mov ds, ax
```

```
display msg1
```

```
mov si, 00h
```

```
back1: mov ah, 01h ; malayalam → input string when
        int 21h      len = 9
```

```
cmp al, 0dh
jz next
```

```
mov str[SI], al
inc SI
inc len
jmp back1
```

```
next: mov SI, 00h
      mov DI, 00h
      add DI, len      ; DI = 00 + 09 = 9
      dec DI           ; DI = 8 (string of length 9 means
                        ; index from 0 to 8)
      mov CX, len      ; CX = 9
```

```
back2 : mov al, str[SI] ; al ← str[00] = value 'm'
      mov rstr[DI], al ; rstr[8] = value 'm'
      inc SI
      dec DI
```

```
loop back2
```

```
mov CX, len      ; CX = 9
mov SI, 00h
mov DI, 00h
CLD
```

```
back3: mov bl, str[SI]
      cmp bl, rstr[DI]
      jnz notpali
      loop back3
      display msg2
      jmp last
```

```
notpali: display msg3
last:   mov ah, 4ch
        int 21h
        end
```