

~~Program~~ PROGRAM - 4~~code~~

.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 is not a palindrome"

str db 10h dup(0)

reverse 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 where length=9  
int 21h

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 revstr[di], al ; revstr[8] = value 'm'
```

```
inc si
```

```
mov revstr[di], al
```

```
dec di
```

```
loop back2
```

```
mov cx, len ; cx = 9
```

```
mov si, 00h
```

```
mov di, 00h
```

```
cld
```

```
back3: mov bl, str[si]
```

```
cmp bl, revstr[di]
```

```
jnz notpali
```

```
loop back3
```

```
display msg2
```

```
jmp last
```

```
notpali: display msg3
```

```
last: mov ah, 4ch
```

```
int 21h
```

```
end
```