

Lab program - 5

check whether the 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 palindrome \$"

msg3 db 0dh, 0ah, "Entered string is not palindrome \$"

str db 10h dup(0)

revstr db 10h dup(0)

len dw 0

• Code

mov ax, @data

mov ds, ax

display msg1

mov si, 00h

back1: mov ah, 01h

int 21h

cmp al, 0dh

jz next

mov str[si], al

inc si

inc leu

jmp back1

next: mov si, 00h

mov di, 00h

add di, leu ; di = 00 + 09 = 9

dec di ; di = 8 (string length 9 means index from 0 to 8)

mov cx, len ; cx = 9

```
back 2: mov al, str[si] ; al ← str[00] = value 'm'  
        mov revstr[di], al ; revstr[8] = value 'm'  
        inc si  
        dec di
```

```
loop back 2
```

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

```
mov si, 00h
```

```
mov di, 00h
```

```
cld
```

```
back 3: mov bl, str[si]
```

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

```
        jnz notpali
```

```
        loop back 3
```

```
        display msg 2
```

```
        jmp last
```

```
notpali: display msg 3
```

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

```
        int 21h
```

```
end
```