Lab Program - 3
Palindrome

```
.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: $"
Rstring db 80H dup (?)
RRstring db 80H dup (?)
.code
start : mov ax, @data.
        mov ds, ax
        display msg1
        ; take the String from Keyboard charactery 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 '$' ;STRING INPUT OVER....
        DEC SI
        MOV CH,CL ;REVERSE THE STRING AND STORE IN RSTRING
        MOV DI,OFFSET RSTRING
BACK:   MOV AL,[SI]
        MOV [DI],AL
        DEC SI
        INC DI
        DEC CH
        JNZ BACK
        MOV [DI],BYTE PTR '$'
        DISPLAY MSG2
        DISPLAY RSTRING
        MOV SI,OFFSET STRING
        MOV DI,OFFSET RSTRING
AG:     MOV AL,[SI]
        CMP AL,[DI]
        JNE FAIL
        INC DI
        DEC CX
        JZ SUCCESS
        JMP AG
FAIL:   DISPLAY MSG4
        JMP FINAL
SUCCESS: DISPLAY MSG3
FINAL:  MOV AH,4CH
        INT 21H
END
```