Lab Experiment 5 : 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.$"
STRING DB  80H DUP (?)
RSTRING DB  80H  DUP (?)
.CODE
START: MOV AX,@DATA
       MOV DS, AX
       DISPLAY MSG1
       MOV SI, OFFSET STRING
       XOR CL, CL
AGAIN:  MOV AH, 01H
        INT 21H
        CMP AL, 0DH
        JE NEXT
        MOV [SI], AL
        INC SI
        INC CL
        JMP AGAIN
NEXT :  MOV [SI], BYTE PTR '$'
        DEC SI
        MOV CH, CL
        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
```

```
AG1 :   MOV AL, [SI]
        CMP AL, [DI]
        JNE FAIL
        INC SI
        INC DI
        DEC CX
        JZ SUCCESS
        JMP AG1
FAIL :  DISPLAY MSG4
        JMP FINAL
SUCCESS : DISPLAY MSG3
FINAL :  MOV AH, 4CH
         INT 21H
END
```