Lab program - 4
Comparison if two strings

```asm
.MODEL SMALL
DISPLAY MACRO MSG
        LEA DX, MSG
        MOV AH, 09H
        INT 21H
ENDM
.DATA
MSG1 DB 0DH,0AH, "Enter first string:$"
MSG2 DB 0DH,0AH, "Enter second string:$"
MSG3 DB 0DH,0AH, "Enter length of first
                    string :$"
MSG4 DB 0DH,0AH, "Enter length of
                    second string :$"
MSG5 DB 0DH,0AH, "--- Strings are equal
                    ---$"
MSG6 DB 0DH,0AH, "--- Strings are not
                    equal --- $"
STRING1 DB 80H DUP(?)
STRING2 DB 80H DUP(?)

.CODE
START: MOV AX, @DATA
       MOV DS, AX
       DISPLAY MSG3
       MOV SI, OFFSET STRING1
       CALL READSTR
       MOV BL, CL ; STORE THE
                    LENGTH OF
                    FIRST STRING
```

```
        DISPLAY MSG2
        MOV SI, OFFSET STRING 2.
        CALL READSER.
        PUSH  BX
        PUSH  CX
        DISPLAY MSG3
        MOV AL, BL
        CALL  LEN-DIS
        DISPLAY MSG4
        MOV AL, CL
        CALT  LEN - DIS
        POP COX
        POP  BX
        CMP  CL, BL  ;  COMPARE THE LENGTH
        JNE FAIL   ;  IF LENGTH ARE EQUAL,
                      ;  PROCESS NEXT STATEMENT
MOV SI OFFSET STRING1
MOV DI OFFSET STRING 2.
CLD
CHK :  MOV  AL, [SI]
       CMP  AL, [DI] ;  COMPARE BOTH
                        THE STRING
       JNE FAIL
       INC SI
       INC DI
       DEC CL
       INZ CHK
       DISPLAY MSG5
       JMP FINAL


LEN-DIS  PROC NEAR.
       XOR  AH, AH
```

```asm
            ADD   AL, 00H
            AAM
            ADD   AX, 3630H
            MOV   BH, AL
            MOV   DL, AH
            MOV   AH   02H
            INT   21H
            MOV   DL, BH
            MOV   AH, 02H
            INT   21H
RET
LEN  DIS  ENDP
READSTR   PROC NEAR
            XOR   CL, CL
BACK :   MOV   AH, 01H
            INT   21H
            CMP   AL, 0DH
            JE    FINISH
            MOV   [SI]  AL
            INC   SI
            INC   CL
            JMP   BACK
FINISH:  MOV [SI], BYTE PTR '$'
            RET
READSTR   ENDP
FAIL :   DISPLAY MSG
FINAL :  MOV   AH, 4CH
            INT   21H
END   START
```