LAB program 1

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```
. MODEL SMALL
  DISPLAY MACRO MSG
       LEA DX, MSG
       MOV AH, 09H
       INT 21H
  ENDM


 . DATA
   LIST DB 01H, 05H, 07H, 10H, 12H, 14H, 20H
   NUMBER EQU ( $-LIST)
   KEY DB 10H
   MSG1 DB ODH, OAH, " ELEMENT FOUND IN THE
                         LIST... $"
     MSG2 DB ODH, OAH, "SEARCH FAILED!!
                        ELEMENT NOT FOUND IN
                         THE LIST $"

 . CODE
   START : MOV AX, @DATA
           MOV DS, Ax

           MOV CH, NUMBER-1
           MOV CL, OOH

 AGAIN : MOV SI, OFFSET LIST
         XOR AX, AX
         CMP CL, CH
         JE NEXT
         JNC FAILED

NEXT :    MOV AL, CL
          ADD AL, CH
```

```
        XOR   AH, AH
        MOV   BP, AX
        MOV   AL, DS : [BP] (SI)
        CMP   AL, KEY
        JE    SUCCESS
        JC    INCLOW
        MOV   CH, BL
INCLOW: MOV CL, BL
        DEC   CH
        JMP   AGAIN

INCLOW : MOV CL, BL.
         INC CL
         JMP AGAIN

SUCCESS : DISPLAY MSG1
          JMP FINAL
FAILED : DISPLAY MSG2
FINAL : MOV AH, 4CH
        INT 21H

        END START
```