

Program :- 1

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USN :- (BM19CS188)

.MODEL SMALL

; MACRO TO DISPLAY THE MESSAGE

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

.DATA

LIST DB 0H, 05H, 07H, 10H, 12H, 14H

NUMBER EQU (\$ - LIST)

KEY DB 10H

MSG1 DB 0DH, 0AH, "ELEMENT ~~NOT~~ FOUND"

MSG2 DB 0DH, 0AH, "SEARCH FAILED!! ELEMENT
NOT FOUND IN THE LIST"

.CODE

START : MOV AX, @DATA

MOV DS, AX

MOV CH, NUMBER - 1 ; HIGH VALUE...

MOV CL, 00H ; LOW VALUE...

AGAIN: MOV ~~AX~~ SI, OFFSET LIST

XOR AX, AX

CMP CL, CH

JE NEXT

JNC FAILED.


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NEXT: MOV AL, CL      ; AL = 00H
      ADD AL, CH      ; AL = 00 + 05 = 05
      SHR AL, 01H
      MOV BL, AL      ; BL → INDEX OF MESSAGE
      XOR AH, AH      ; CLEAR AH
      MOV BP, AX
      MOV AL, DS:[BP][SI]
      CMP AL, KEY
      JE SUCCESS
      JC INLOW
      MOV CH, BL
      DEC CH
      JMP AGAIN.
    
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INLOW : MOV CL, BL
      INC CL
      JMP AGAIN
    
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SUCCESS : DISPLAY MSG1
      JMP FINAL
    
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FAILED : DISPLAY MSG2
    
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FINAL : MOV AH, 4CH
      INT 21H
    
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END START
    
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