

MP Lab Week 3

.MODEL SMALL

; Macro to display the message
Display Macro MSG

LEAD XC, MSG

MOV AX, 09H

INT 21H

ENDM

.DATA

LIST DB 01H, 05H, 07H, 10H, 12H, 14H

NUMBER EQU (\$ - LIST)

KEY DB 011H

MSG1 DB 0DH, 0AH, "Element found in list.....\$"

MSG2 DB 0DH, 0AH, "Search failed!! Element not found \$"

.CODE

START: MOV AX, @DATA

MOV DS, AX

MOV CH, NUMBER - 1 ; HIGH VALUE ..

MOV CL, 00H ; LOW VALUE ..

AGAIN: MOV SI, OFFSET LIST

XOR AX, AX

CMP CL, CH

JE NEXT

JNC FAILED


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NEXT: MOV AL, CL
      ADD AL, CH
      SHR AL, 01H ; Divide by 2
      MOV BL, AL
      XOR AH, AH ; CLEAR AH
      MOV AL,
      MOV BP, AX
      MOV AL, DS:[EBP][SI]
      CMP AL, KEY ; COMPARE Key and A[SI]
      JE SUCCESS ; If equal, Display Success
      JC INLOW ; message
      MOV CH, BL ; If key > A[SI] Shift low
      DEL CH ; high
      JMP AGAIN

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INLOW: MOV CL, BL ; if key < A[SI] shift low
      INC CL
      JMP AGAIN

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SUCCESS: DISPLAY MSG1
      JMP FINAL

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FAILED: DISPLAY MSG2 ; Job Over. Terminat...

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FINAL: MOV AH, 4CH
      INT 21H

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END START

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