

Binary Search

MPCC.LAB

Dorshan Ningthoujam
LBNA9CS041

.MODEL SMALL

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

.DATA

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

NUMBER EQU (\$-LIST)

KEY DB 12H

MSG1 DB 0DH, 0AH, "ELEMENT FOUND IN THE LIST.: \$"

MSG2 DB 0DH, 0AH, "SEACH FAILED! ELEMENT NOT
FOUND IN THE LIST \$"

.CODE

START: MOV AX, @DATA

MOV DS, AX

MOV CH, NUMBER-1

MOV CL, 00H

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
        MOV BL, AL
        XOR AH, AH
        MOV BP, AX
        MOV AL, DS:[BP][SI]
        CMP AL, KEY
        JE  SUCCESS
        JC  INCLow
        MOV CH, BL
        DEC CH
        JMP AGAIN

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INCLow : 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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RA
FINAL : MOV AH, 4CH
        INT 21H

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END START

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