Binary Search Program - 1

```
.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 ($-LIST)
KEY DB 10H
MSG1 DB 0DH, 0AH, "ELEMENT FOUND IN THE
                    TH LIST...$"
MSG2 DB 0DH, 0AH, "SEARCH 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
```

```asm
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
INCLOW: MOV CL, BL
        INC CL
        JMP AGAIN
SUCCESS: DISPLAY MSG1
        JMP FINAL
FAILED: DISPLAY MSG2
FINAL:  MOV AH, 4CH
        INT 21H
END START
```