

Lab program -1 Binary Search program.

.model small

; MACRO TO DISPLAY THE MESSAGE....
DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

.DATA

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

NUMBER EQU (8 - LIST)

KEY DB 04H

MSG1 DB 0DH, 0AH "Element 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

NEXT: MOV AL, CL

ADD AL, CH

SHR AL, 01H

MOV BL, AL

XOR AH, AH

```
MOV BP, AX
MOV AL, DS; [BP][ESI]
CMP AL, KEY
JE SUCCESS
JC INLOW
MOV CH, BL
DEC CH
JMP AGAIN
INLOW: MOV CL, BL
      INC CL
      JMP AGAIN
SUCCESS: DISPLAY MSG1
        JMP FINAL
FAILED: DISPLAY MSG2
FINAL: MOV AH, 4CH
      INT 21H
END START
```