Vallisha M
IBM19 CS177

BINARY SEARCH

```
.MODEL SMALL

DISPLAY MACRO MSG
        LEA DX,MSG
        MOV AH, 09H
        INT 21H
ENDM

.DATA

LIST   DB  01H, 05H, 10H, 12H,  14H
NUMBER  EQU  ($-LIST)
KEY DB    10H
MSG1   DB ODH, OAH, " ELEMENT FOUND IN
LIST  $ "
MSG2 DB    ODH, OAH, "SEARCH FAILED,
ELEMENT NOT FOUND IN 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
       ·MOV  AH,0H
        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  MG1
        JMP  FINAL


FAILED:  DISPLAY  MSG2
FINAL:  MOV  AH,4CH
        INT  21H
END  START
```