

* RAB1 → Binary Search.

• 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 011H

MSG1 DB 0DH, 0AH, "ELEMENT FOUND IN THE LIST...8"

MSG2 DB 0DH, 0AH, "SEARCH FAILED!! ELEMENT NOT FOUND IN THE LIST8"

• 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

NEXT: MOV AL, CL

ADD AL, CH

SHR AL, 01H ; DIVIDE BY 2

MOV BL, AL

XOR AH, AH ; CLEAR AH

```

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

```

```
INCLW: MOV CH, BL
```

```
INC CL
```

```
JMP AGAIN
```

```
INCLW: MOV CL, BL
```

```
INC CL
```

```
JMP AGAIN.
```

```
SUCCESS: DISPLAY MSG1
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```
JMP FINAL
```

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

```
END START.
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