

• 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 (\$-LIST) ; number here is having the value 6

KEY DB 10H

MSG1 DB 0DH, 0AH, "ELEMENT FOUND IN THE 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 ; HIGH VALUE --- HERE VALUE IS
6-1=5

MOV CL, 00H ; LOW VALUE ---

AGAIN: MOV SI, ~~00~~ OFFSET LIST ; LEA SI, LIST
XOR AX, AX ; MOV AX, 00H
CMP CL, CH ; SUBTRACTION OF CL-CH
JE NEXT
JNC FAILED.

NEXT: MOV AL, CL ; AL = 00H
ADD AL, CH ; AL = 00 + 05 = 05
SHR AL, 01H ; DIVIDE BY 2 ---> AL will have
the index of
midpoint.
MOV BL, AL ; BL -> index of
element. middle element.

XOR AH, AH ; CLEAR AH

MOV BP, AX

MOV AL, DS:[BP][SI]

CMP AL, KEY ; compare key and ASCII
JE SUCCESS ; IF Equal, Display Success message
JC INCLW.