LAB 2:---

PROGRAM

.MODEL SMALL

DISPLAY MACRO MSG

LEA DX,MSG

MOV AH,09H

INT 21H

ENDM

.DATA

N DB 6

A DB 05,07,09,03,01,08

MSG1 DB 0DH,0AH,"1-SORT IN ASCENDING ORDER...$"

MSG2 DB 0DH,0AH,"2-SORT IN DESCENDING ORDER...$"

MSG3 DB 0DH,0AH,"3-EXIT$"

MSG4 DB 0DH,0AH,"ENTER YOUR CHOICE$"

MSG5 DB 0DH,0AH,"INVALID CHOICE$"

.CODE

MOV AX,@DATA

MOV DS,AX

LEA SI,A

MOV CL,N

DEC CL

DISPLAY MSG1

DISPLAY MSG2

DISPLAY MSG3

DISPLAY MSG4

MOV AH,01H

INT 21H

SUB AL,30H

CMP AL,01H

JE ASCSORT

CMP AL,02H

JE DESCSORT

CMP AL,03H

JE FINAL

DISPLAY MSG5

JMP FINAL

ASCSORT:MOV CH,CL

MOV SI,00H

INLOOPA:MOV AL,A[SI]

INC SI

CMP AL,A[SI]

JC NOA

XCHG AL,A[SI]

MOV A[SI-1], AL

NOA: DEC CH

JNZ INLOOPA

DEC CL

JNZ ASCSORT

JMP FINAL

DESCSORT:MOV CH,CL

MOV SI,00H

INLOOPD:MOV AL,A[SI]

INC SI

CMP AL,A[SI]

JC NOD

XCHG AL,A[SI]

MOV A[SI-1], AL

NOD:DEC CH

JNZ INLOOPD

DEC CL

JNZ DESCSORT

JMP FINAL

FINAL:MOV AH,4CH

INT 21H

END

SCREENSHOT:--



WRITTEN:--

