Sorting

```
.model small
.386
.data
ARRAY DW 20 DUP (?)
DATA1 dw 0000H
NUMB DW 0000H
msg db 10,13,"Enter the size of the array :: $"
msg2 db 10,13,"Enter the array :: $"
msg3 db 10,13,"The sorted array is :: $"

.code
.startup
MOV AH,09
MOV DX,OFFSET msg
INT 21H
MOV AH,01
INT 21H
SUB AL,30H
MOV AH,0
MOV CX,AX
MOV DATA1,AX

MOV AH,09
MOV DX,OFFSET msg2
INT 21H
MOV AH,0
MOV SI, 0
MOV BX, OFFSET ARRAY
L1: MOV DL, 0AH ; jump onto next line
MOV AH, 02H
INT 21H
MOV DX, SI ; input element of the array
MOV AH, 01H
INT 21H
SUB AL,30H
MOV SI, DX
MOV [BX + SI], AX
INC SI
LOOP L1

MOV CX, DATA1
MOV BX, OFFSET ARRAY
MOV DI,CX
L2: MOV CX, DATA1
MOV NUMB, CX     ; Change1
DEC NUMB         ; Change2
MOV CX, NUMB     ; change3
MOV SI, 0
L3: MOV AL, [BX + SI]
```

```
CMP AL, [BX + SI + 1]
JL L4
XCHG AL,[BX + SI + 1]
MOV [BX + SI],AL
L4: INC SI
LOOP L3
DEC DI
JNZ L2

MOV CX, DATA1
MOV SI, 0
MOV BX, OFFSET ARRAY
MOV AH,09
MOV DX,OFFSET msg3
INT 21H
L5: MOV DL, 0AH ; jump onto next line
MOV AH, 02H
INT 21H
MOV DX, [BX + SI]
INC SI
ADD DL, 30H
MOV AH, 02
INT 21H
LOOP L5
.EXIT
END
```