*bubble_sort - Notepad

File Edit Format View Help

```
Bubble sort
.MODEL SMALL
DISPLAY MACRO MSG
LEA DX, MSG
MOV AH, 09H
INT 21H
ENDM
.DATA
LIST DB 02H, 01H, 34H, 0F4H, 09H, 05H
NUMBER EQU $-LIST
MSG1 DB 0DH, 0AH, &amp;quot;1 &amp;gt;&amp;gt; SORT IN ASCENDING ORDER$&amp;quot;
MSG2 DB 0DH, 0AH, &amp;quot;2 &amp;gt;&amp;gt; SORT IN DESCENDING ORDER$&amp;quot;
MSG3 DB 0DH, 0AH, &amp;quot;3 &amp;gt;&amp;gt; EXIT$&amp;quot;
MSG4 DB 0DH, 0AH, &amp;quot;ENTER YOUR CHOICE :: $&amp;quot;
MSG5 DB 0DH, 0AH, &amp;quot;INVALID CHOICE ENTERED...$&amp;quot;
.CODE
START : MOV AX, @DATA
MOV DS, AX
LEA SI, LIST
MOV CH, NUMBER-1 ; CL STORES THE NUMBER OF ELEMENTS IN LIST
DISPLAY MSG1 ; DISPLAY THE MENU...
DISPLAY MSG2
DISPLAY MSG3
DISPLAY MSG4
MOV AH, 01H
INT 21H
SUB AL, 30H
CMP AL, 01H ; INPUT=1? SORT IN ASCENDING ORDER
JE ASCSORT
CMP AL, 02H ; INPUT=2? SORT IN DESCENDING ORDER
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

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```
JE DESSORT
CMP AL, 03H ; INPUT=3? EXIT
JE FINAL

DISPLAY MSG5
JMP FINAL
ASCSORT:MOV BL, 00H
AGAIN: MOV SI, OFFSET LIST
MOV CL, 00H ; J VALUE
MOV BH, CH
SUB BH, BL ; N-1-i
NPASS: CMP CL, BH
JNC NEXT
MOV AL, [SI]
MOV BP, 01H
CMP AL, DS: [BP][SI]
JC _NOPE
XCHG AL, [SI+1]
XCHG [SI], AL
_NOPE : INC CL
INC SI
JMP NPASS
NEXT: INC BL
CMP BL, CH
JC AGAIN
JMP FINAL

DESSORT:MOV BL, 00H
AGAIN1: MOV SI, OFFSET LIST
MOV CL, 00H ; J VALUE
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

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*bubble_sort - Notepad

File Edit Format View Help

```
CMP BL, CH
JC AGAIN
JMP FINAL

DESSORT:MOV BL, 00H
AGAIN1: MOV SI, OFFSET LIST
MOV CL, 00H ; J VALUE
MOV BH, CH
SUB BH, BL ; N-1-i
NPASS1: CMP CL, BH
JNC NEXT
MOV AL, [SI]
MOV BP, 01H
CMP AL, DS: [BP][SI]
JNC _NOPE1

XCHG AL, [SI+1]
XCHG [SI], AL
_NOPE1: INC CL
INC SI
JMP NPASS1
NEXT1: INC BL
CMP BL, CH
JC AGAIN1
FINAL: MOV AH, 4CH
INT 21H
END START
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

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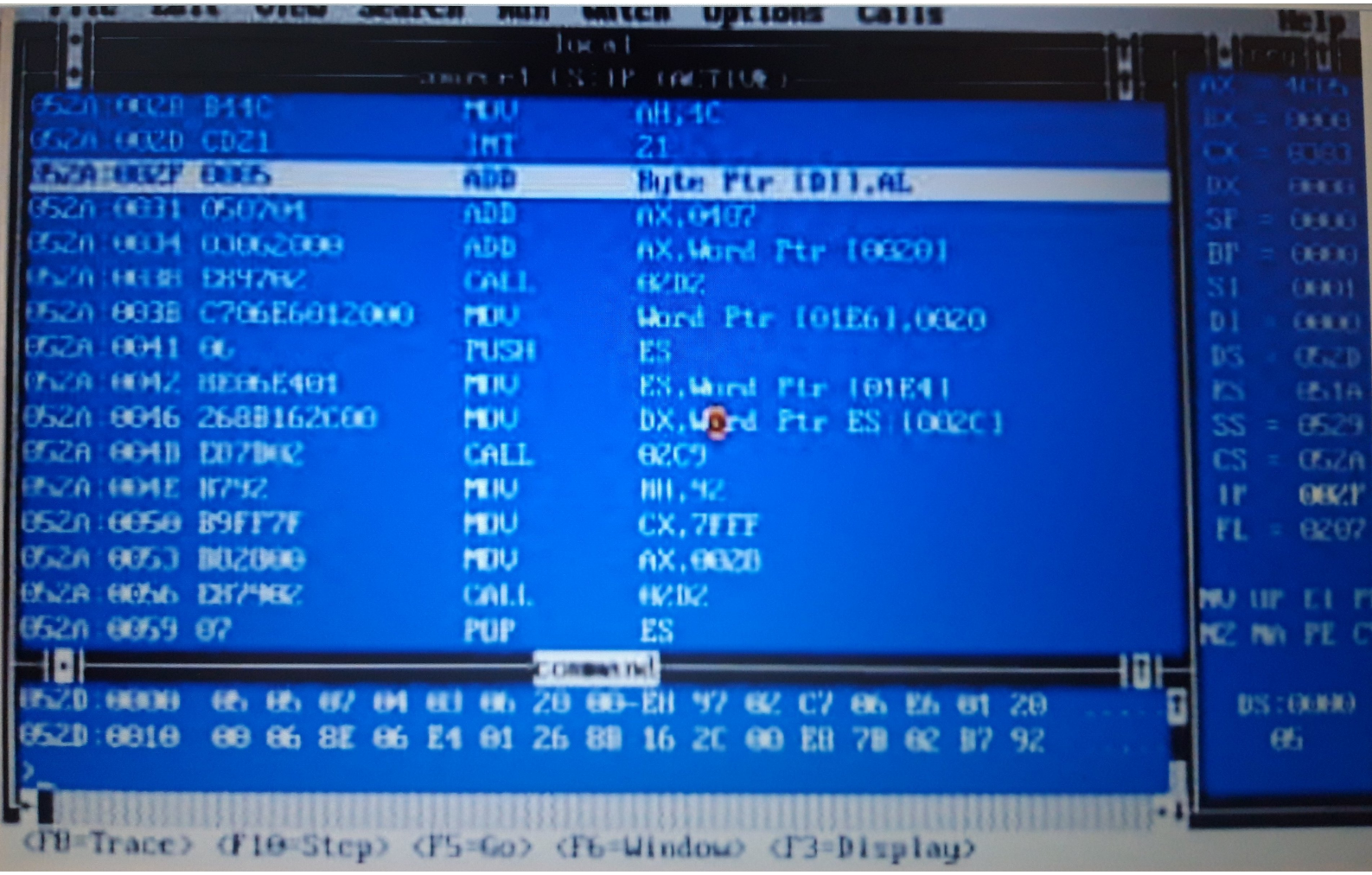
Bubble sort.

```
.model small
.data
  n db 5
  a db 05, 07, 04, 03, 06
.code
  mov ax, @data
  mov DS, ax
  mov cl, n
  dec cl
outloop: mov ch, cl
         mov SI, 00h
inloop : mov al, a[SI]
         inc SI
         cmp al, a[SI]
         JC  no exch
        xchg al, a[SI]
         mov a[SI-1], al
noexch : Dec ch
         Inc inloop
         Dec cl
         JNC outloop
         mov ah, 4ch
         Int 21h
  end.
```


MOV AH,4C
INT 21
ADD Byte Ptr [DI],AL
ADD AX,0107
ADD AX,Word Ptr [0020]
CALL 02D2
MOV Word Ptr [01E6],0020
PUSH ES
MOV ES,Word Ptr [01E4]
MOV DX,Word Ptr ES:[002C]
CALL 02C9
MOV AH,42
MOV CX,7FFF
MOV AX,0020
CALL 02D2
POP ES
Help
<F8=Trace> <F10=Step> <F5=Go> <F6=Window> <F3=Display>