

Experiment No. 6

Aim – ALP to sort an array in ascending order / descending order.

Program –

Ascending order -

```
DATA SEGMENT
STRING1 DB 99H,12H,56H,45H,36H
DATA ENDS
```

```
CODE SEGMENT
ASSUME CS:CODE,DS:DATA
START: MOV AX,DATA
MOV DS,AX
```

```
MOV CH,04H
```

```
UP2: MOV CL,04H
LEA SI,STRING1
```

```
UP1: MOV AL,[SI]
MOV BL,[SI+1]
CMP AL,BL
JC DOWN
MOV DL,[SI+1]
XCHG [SI],DL
MOV [SI+1],DL
```

```
DOWN: INC SI
DEC CL
JNZ UP1
DEC CH
JNZ UP2
```

```
INT 03H
CODE ENDS
END START
```

-----XXXXXXXXXX-----XXXXXXXXXXXXXXXXXXXX-----

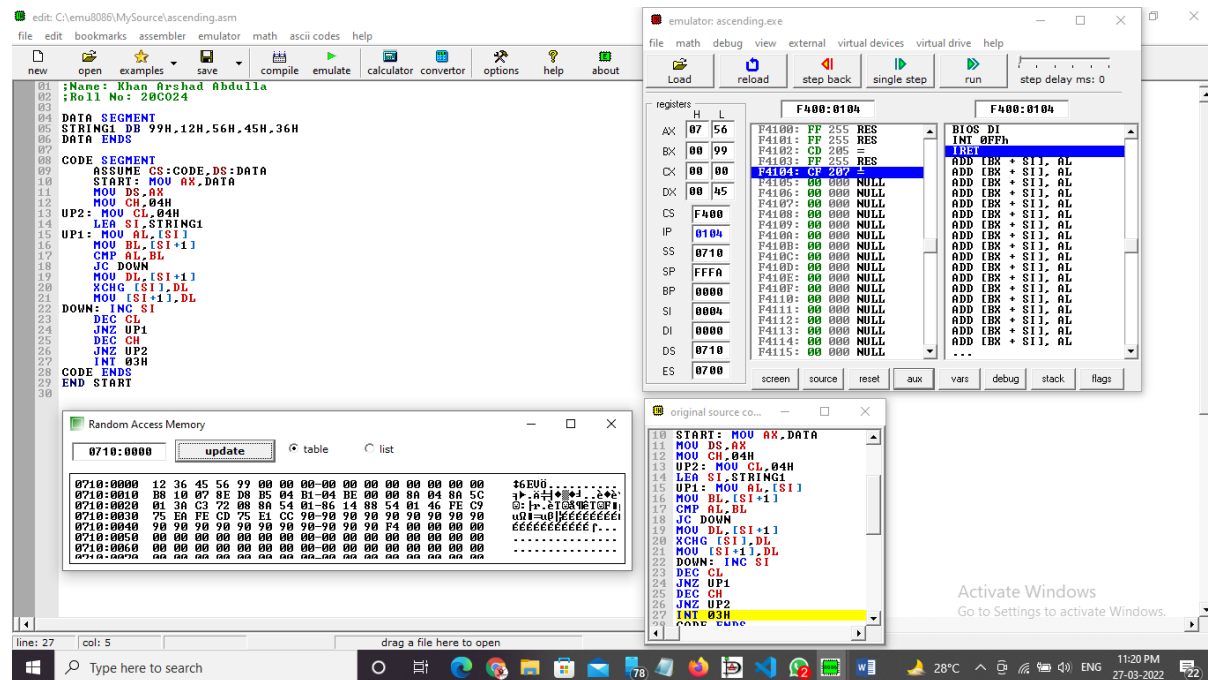
Procedure –

1. **Launch emu8086 IDE** from menu.
2. **Edit** your program , save as file_name.asm
3. **Compile** your program to check for syntax errors, rectify if any error is present. Save and recompile your program.
4. **Run** to observe output of your program.

Output –

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Conclusion- To sort an array in ascending order / descending order, we use the CMP Instruction along with loops.