DESCENDING ORDER

EXP NO: 13

AIM:
To compute descending order of an array using 8085 processor.

ALGORITHM:

1) Initialize HL pair as memory pointer.

2) Get the count at memory and load it into C register

3) Copy it in D register (for bubble sort (N-1)) times required).

4) Get the first value in A register.

5) Compare it with the value at next location.

6) If they are out of order, exchange the contents of A register and memory.

7) Decrement D register content by 1

8) Repeat step 5 and 7 till the value in D register become zero.

9) Decrement the C register content by 1.

10) Repeat steps 3 to 9 till the value in C register becomes zero.

PROGRAM:

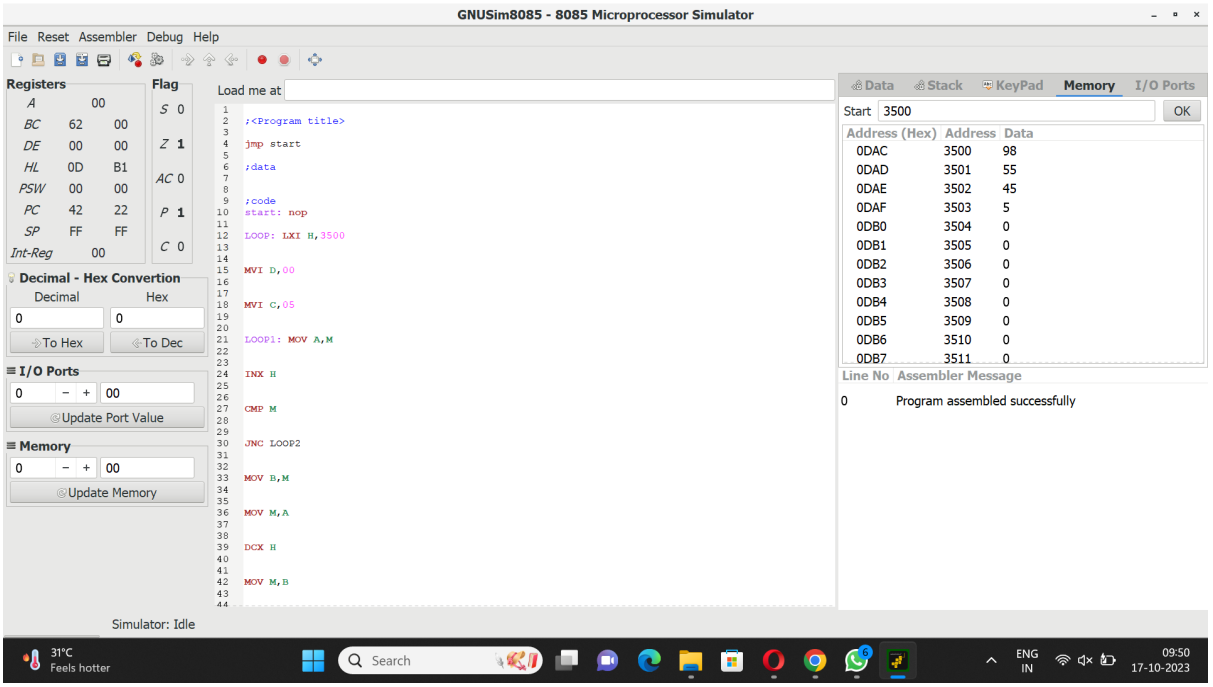
```
LOOP: LXI H,3500

MVI D,00

MVI C,05

LOOP1: MOV A,M

INX H

CMP M

JNC LOOP2

MOV B,M

MOV M,A
```

```
DCX H

MOV M,B

INX H

MVI D,01

LOOP2: DCR C

JNZ LOOP1

MOV A,D

RRC

JC LOOP

HLT
```

INPUT:

Address (Hex)	Address	Data
0DAC	3500	5
0DAD	3501	45
0DAE	3502	55
0DAF	3503	77
0DB0	3504	98
0DB1	3505	99

OUTPUT:



RESULT: Thus
the program was executed successfully using 8085 processor simulator.