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:

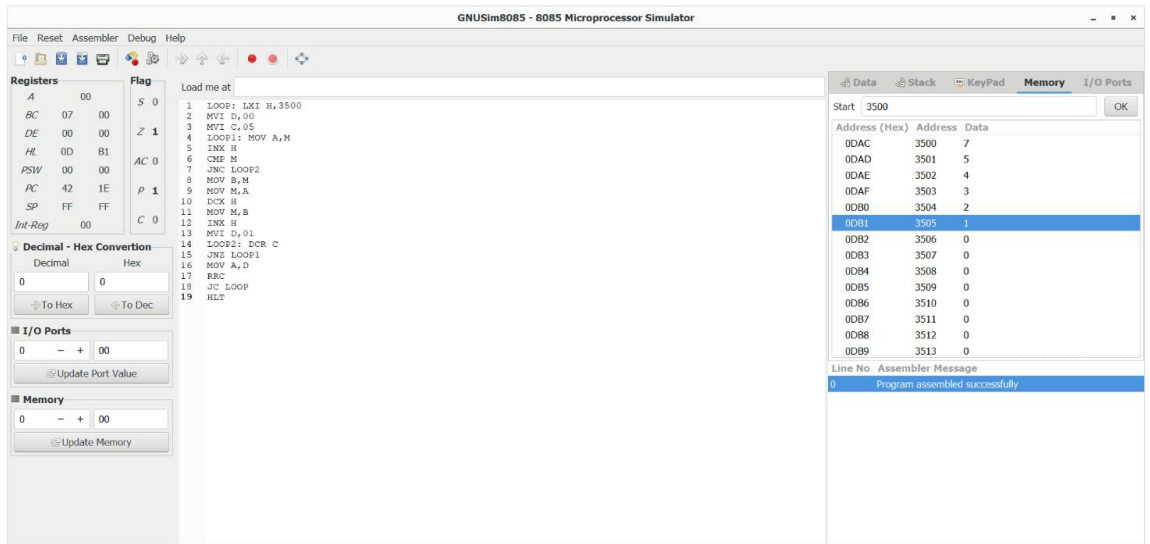**LOOP: LXI H,3500**

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	7
0DAD	3501	5
0DAE	3502	4
0DAF	3503	3
0DB0	3504	2
0DB1	3505	1
0DB2	3506	0
0DB3	3507	0
0DB4	3508	0
0DB5	3509	0
0DB6	3510	0
0DB7	3511	0
0DB8	3512	0
0DB9	3513	0

Line No	Assembler Message
0	Program assembled successfully

OUTPUT:

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