

ASCENDING ORDER

EXP NO: 12

AIM: To compute the ascending order of an array using an 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 the 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 steps 5 and 7 till the value in D register becomes 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

JC 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

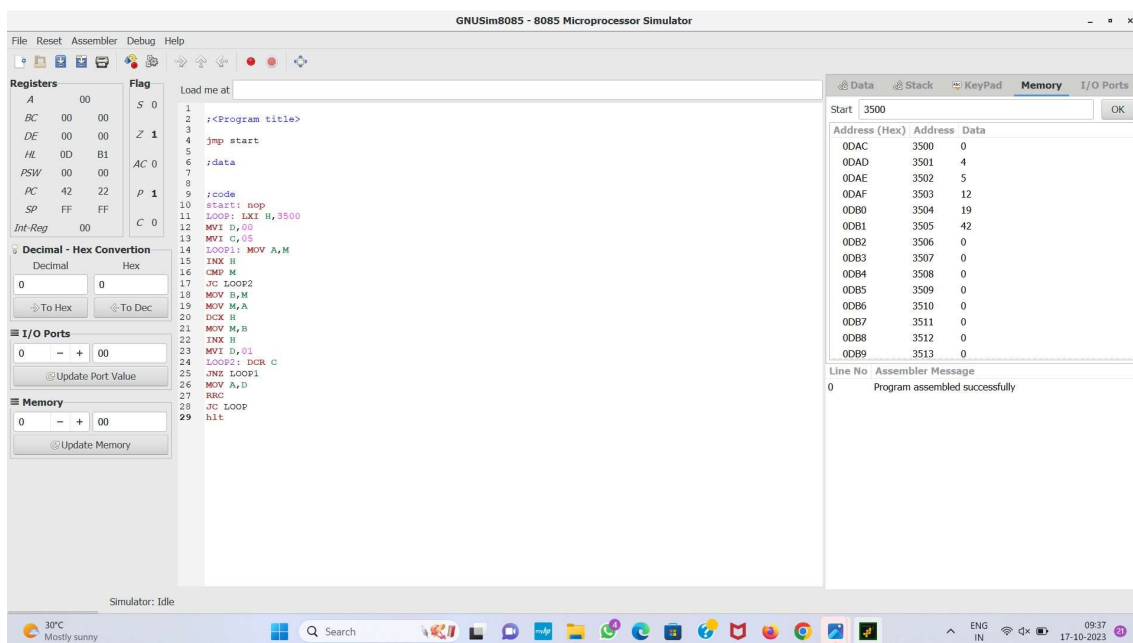
RRC

JC LOOP

HLT

INPUT:

OUTPUT:



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