ASCENDING ORDER

EXP NO: 12
AIM: To compute ascending 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.

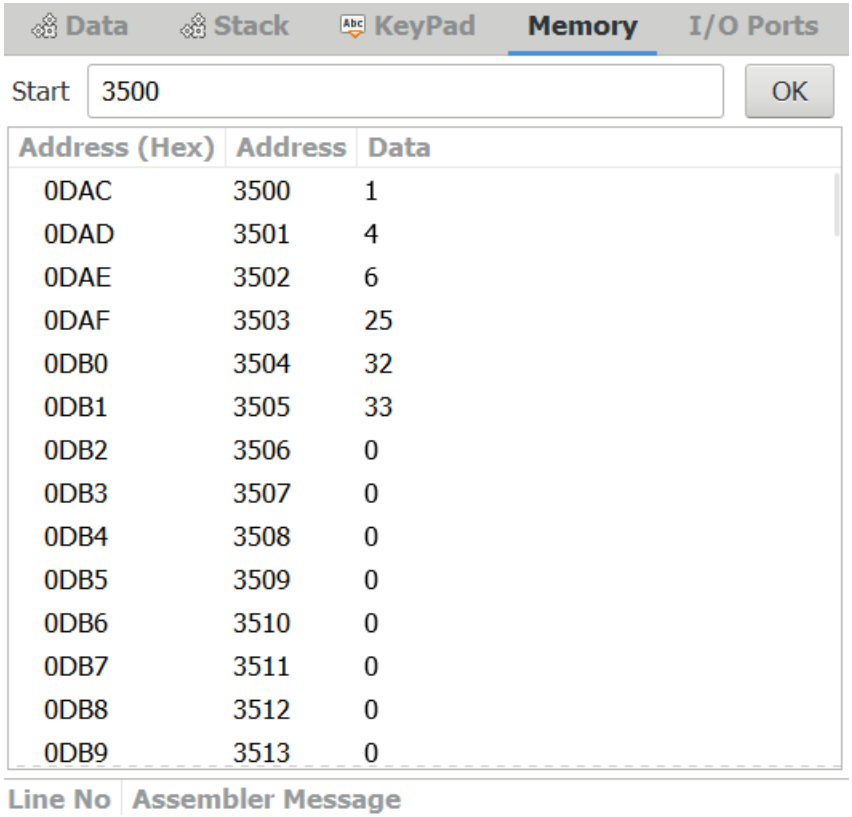
10) Repeat steps 3 to 9 till the value in C register becomes zero.

PROGRAM:

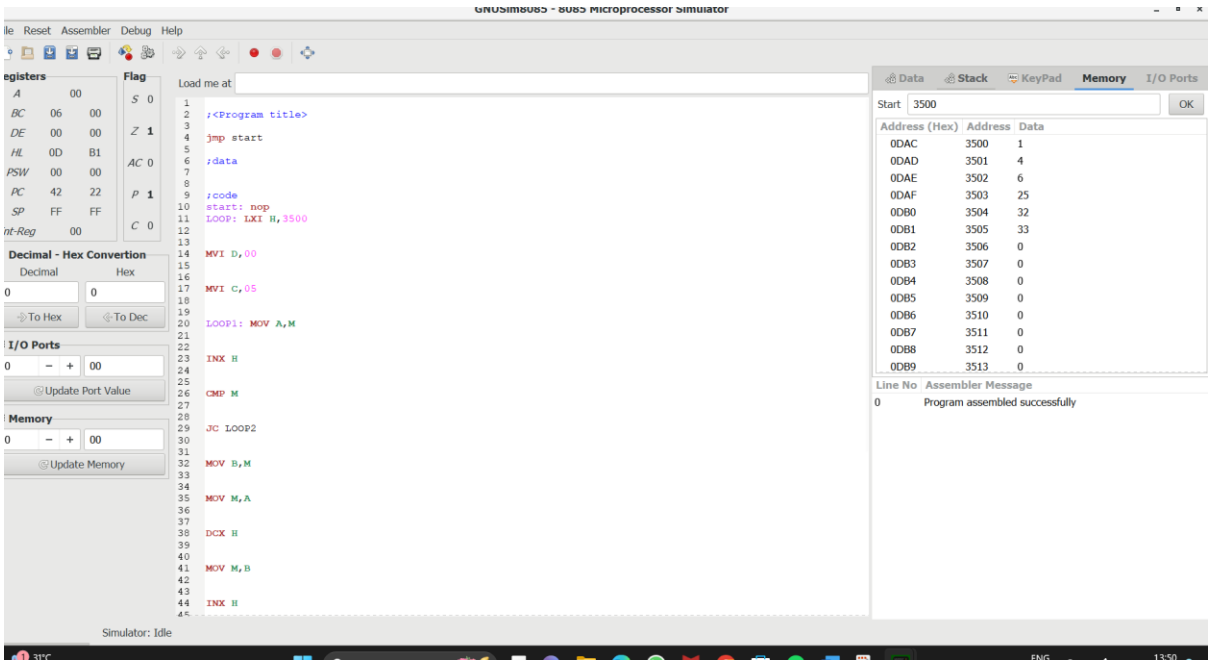
```
LOOP: LXI H,3500

MVI D,00

MVI C,05
```

```
LOOP1: MOV A,M

INX H

CMP M

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:


Data
Stack
KeyPad
Memory
I/O Ports
Start
3500
OK
Address (Hex)
Address
Data
0DAC 3500 1
0DAD 3501 4
0DAE 3502 6
0DAF 3503 25
0DB0 3504 32
0DB1 3505 33
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

OUTPUT:



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