SMALLEST NUMBER IN AN ARRAY

EXP NO: 11

AIM:

To find the smallest number from an array using an 8085 processor.

ALGORITHM:

1)   Load the address of the first element of the array in HL pair.

2)   Move the count to B register.

3)   Increment the pointer.

4)   Get the first data in A register.

5)   Decrement the count.

6)   Increment the pointer.

7)   Compare the content of memory addressed by HL pair with that of A register.

8)   If carry=1, go to step 10 or if carry=0 go to step 9

9)   Move the content of memory addressed by HL to A register.

10) Decrement the count.

PROGRAM:

```
LXI H,2050

MOV C,M

DCR C

INX H

MOV A,M

LOOP1: INX H

CMP M

JC LOOP

MOV A,M

LOOP: DCR C

JNZ LOOP1

STA 2058

HLT
```
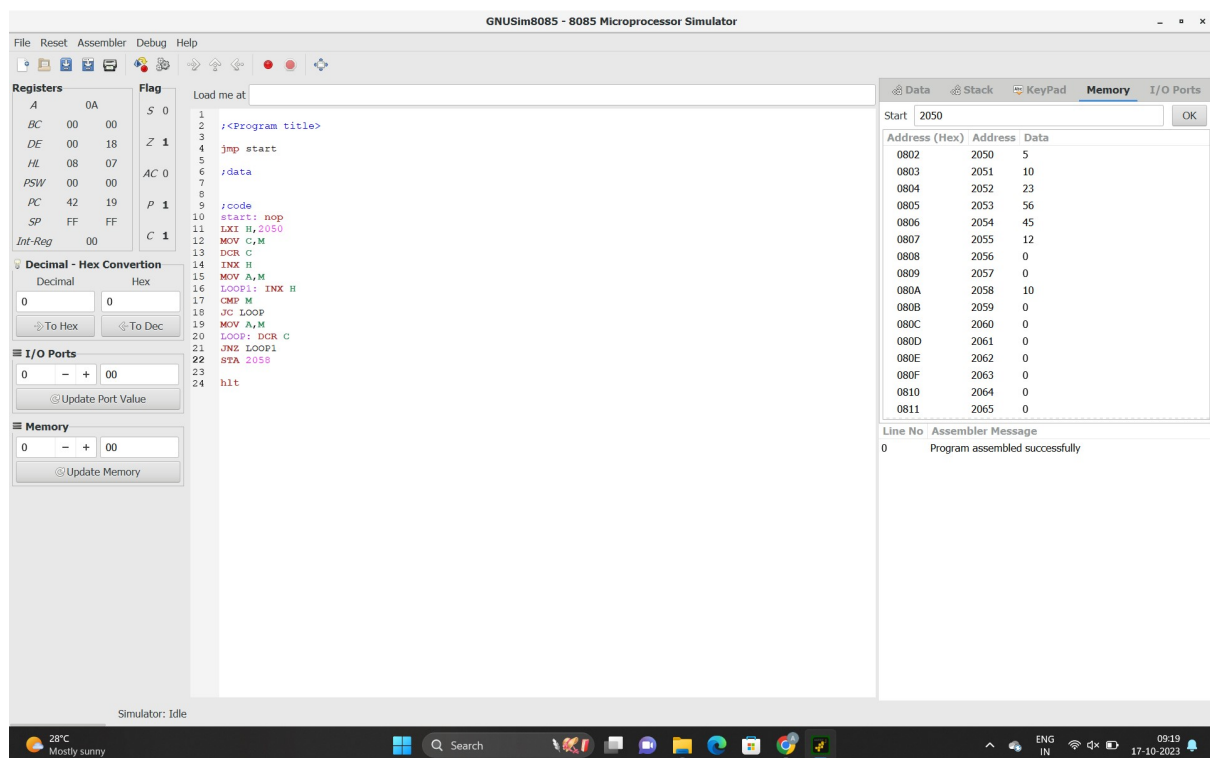
INPUT:

0802	2050	5
0803	2051	10
0804	2052	23
0805	2053	56
0806	2054	45
0807	2055	12

OUTPUT:

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