SMALLEST NUMBER IN AN ARRAY

EXP NO: 11

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

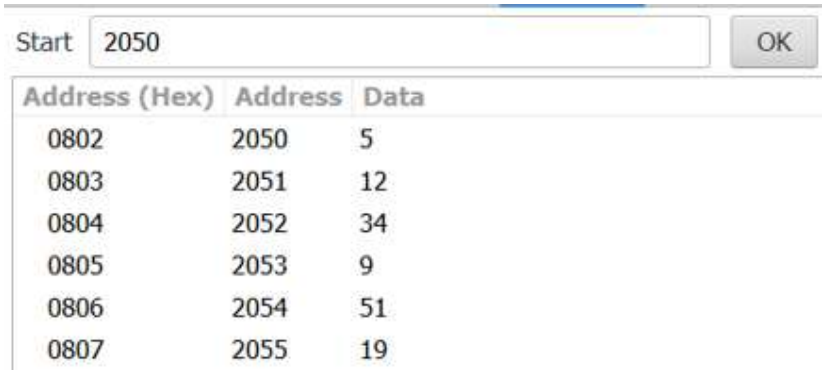
ALGORITHM:

1) Load the address of the first element of the array in the 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 the 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
```

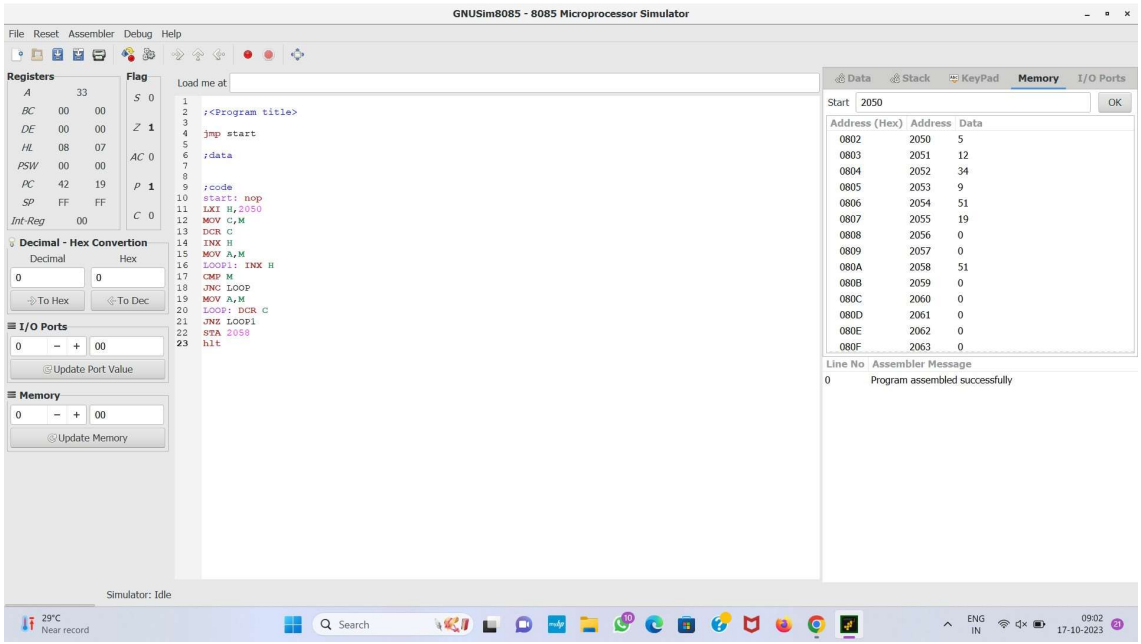
INPUT:



Start 2050 OK

Address (Hex)	Address	Data
0802	2050	5
0803	2051	12
0804	2052	34
0805	2053	9
0806	2054	51
0807	2055	19

OUTPUT:



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