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 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
```

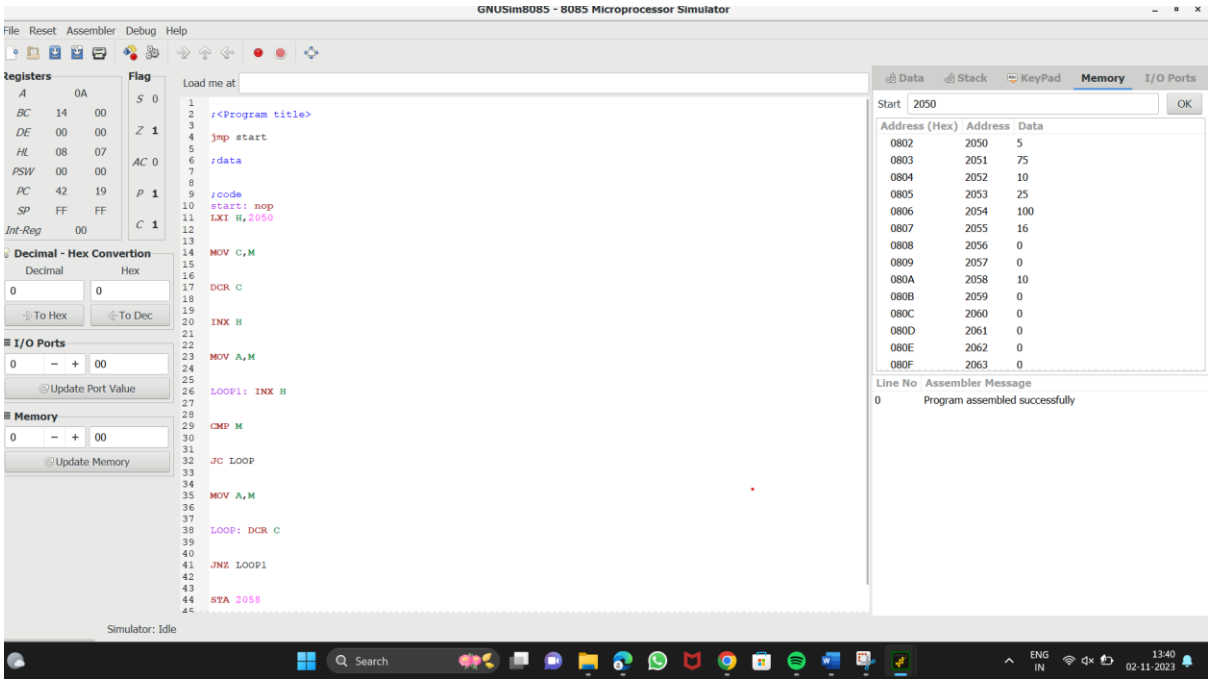
INPUT:

Data | Stack | KeyPad | Memory | I/O Ports

Start 2050 OK

Address (Hex)	Address	Data
0802	2050	5
0803	2051	75
0804	2052	10
0805	2053	25
0806	2054	100
0807	2055	16
0808	2056	0
0809	2057	0
080A	2058	10
080B	2059	0
080C	2060	0
080D	2061	0
080E	2062	0
080F	2063	0

OUTPUT:



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