

## **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

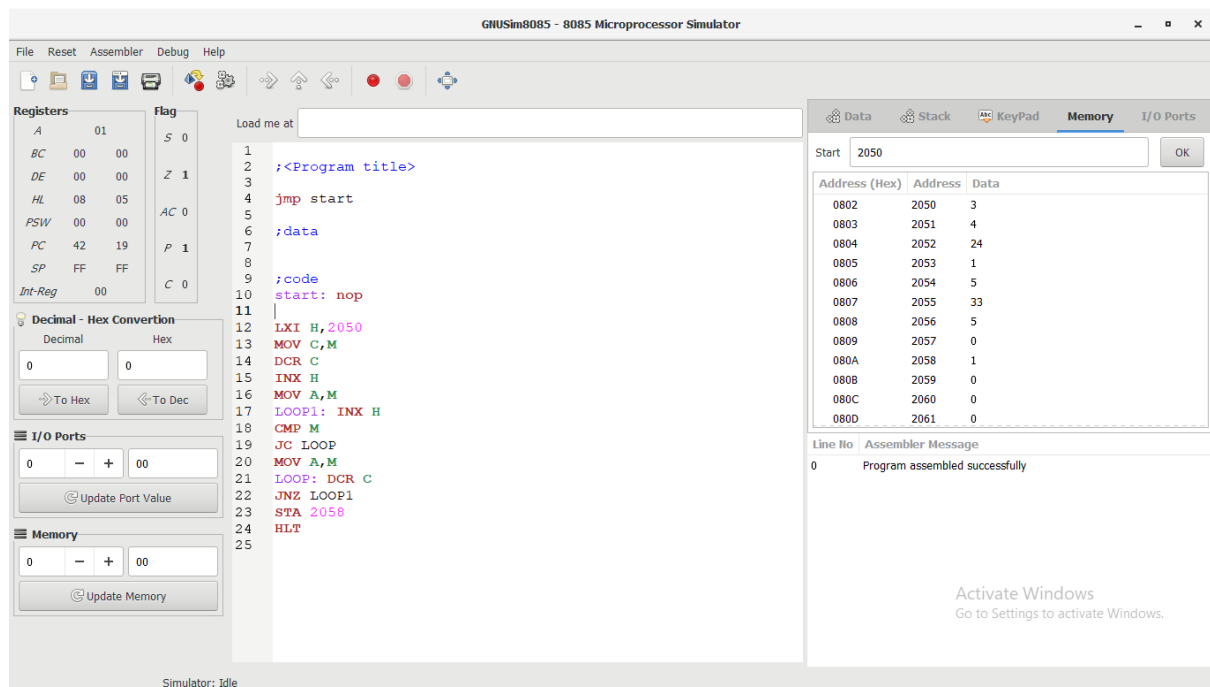
STA 2058

HLT

INPUT:

Data   Stack   Keypad <b>Memory</b> I/O Ports			
Start	<input type="text" value="2050"/>		<input type="button" value="OK"/>
Address (Hex)	Address	Data	
0802	2050	3	
0803	2051	4	
0804	2052	24	
0805	2053	1	
0806	2054	5	
0807	2055	33	
0808	2056	5	
0809	2057	0	
080A	2058	1	
080B	2059	0	
080C	2060	0	
080D	2061	0	

OUTPUT:



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