

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:

DataStackKeyPadMemoryI/O Ports

Start2050OK

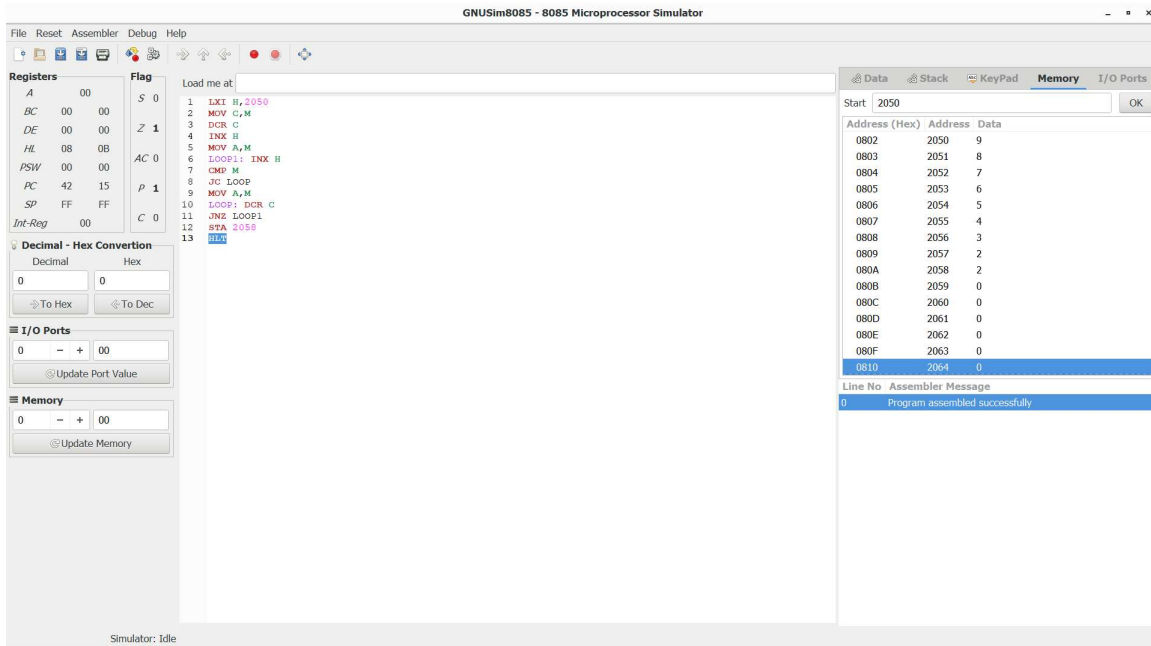
Address (Hex)	Address	Data
0802	2050	9
0803	2051	8
0804	2052	7
0805	2053	6
0806	2054	5
0807	2055	4
0808	2056	3
0809	2057	2
080A	2058	2
080B	2059	0
080C	2060	0
080D	2061	0
080E	2062	0
080F	2063	0
0810	2064	0

Line No

Assembler Message

0Program assembled successfully

OUTPUT



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