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.

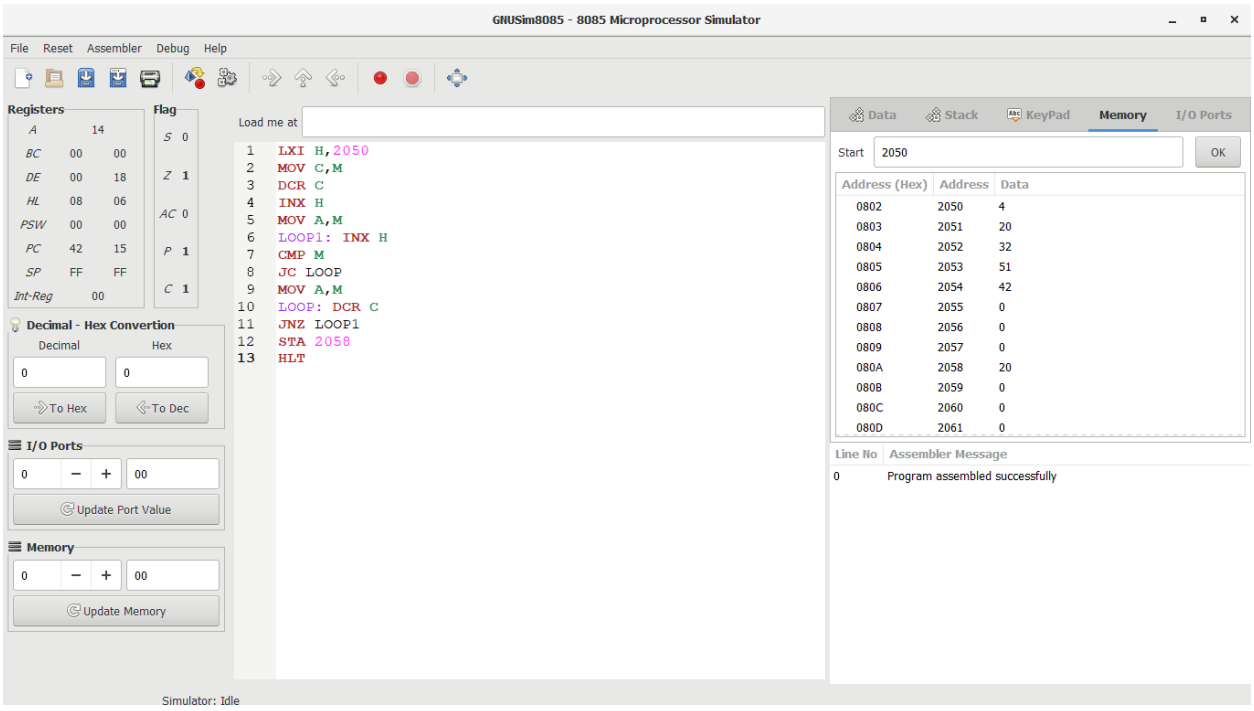
PROGRAM:

```
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 & OUTPUT

Start 2050

Address (Hex)	Address	Data
0802	2050	4
0803	2051	20
0804	2052	32
0805	2053	51
0806	2054	42
0807	2055	0
0808	2056	0
0809	2057	0
080A	2058	20
080B	2059	0
080C	2060	0
080D	2061	0



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