

## **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,8050

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

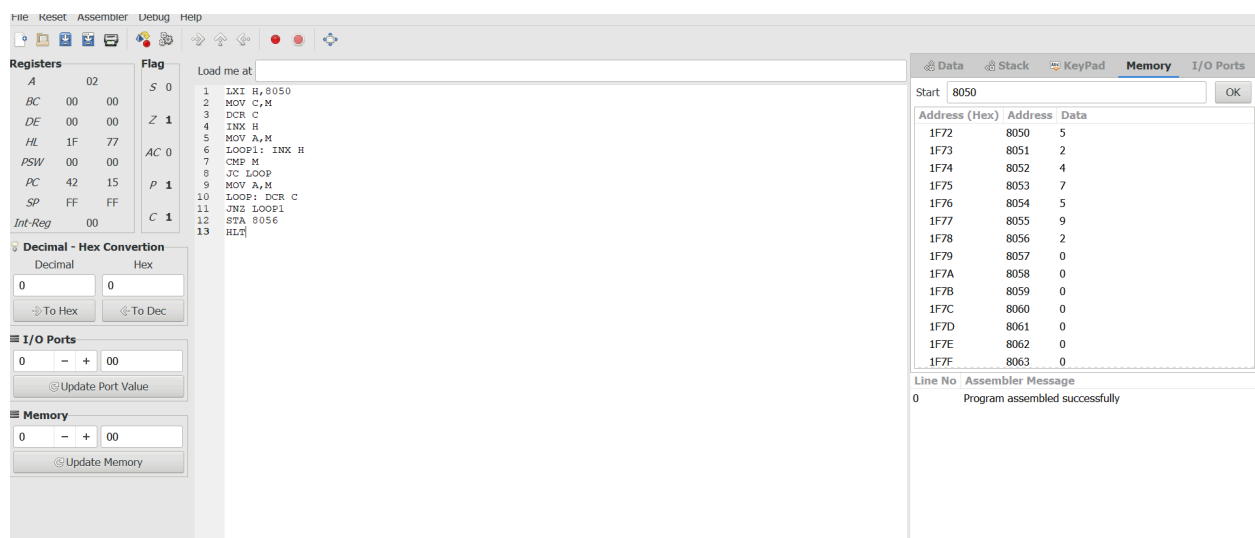
STA 8056

HLT

**INPUT:**

5,2,4,7,5,9

**OUTPUT:**



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