

## **16-BIT ADDITION**

**EXP NO: 5**

**AIM:** To write an assembly language program to implement 16-bit addition using 8085 processor.

### **ALGORITHM:**

- 1) Start the program by loading a register pair with address of 1st number.
- 2) Copy the data to another register pair.
- 3) Load the second number to the first register pair.
- 4) Add the two register pair contents.
- 5) Store the result in memory locations.
- 6) Terminate the program.

### **PROGRAM:**

LHLD 2500

XCHG




LHLD 2502

DAD D

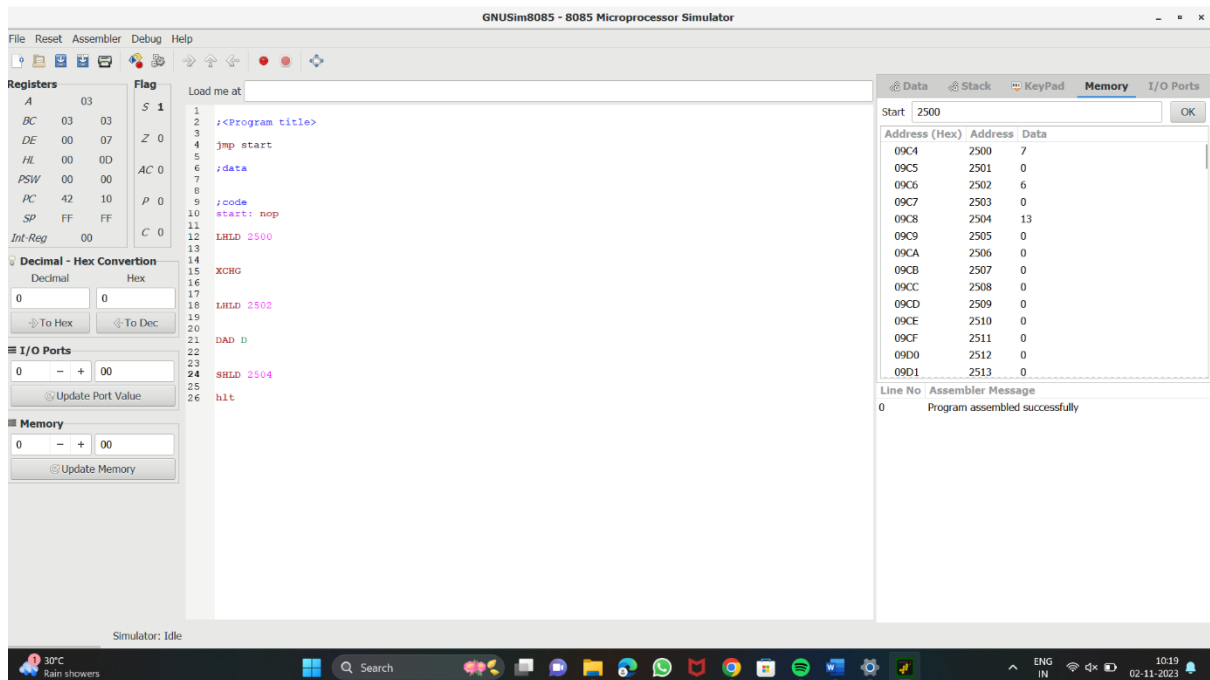
SHLD 2504

HLT

**INPUT:**

 Data  Stack  KeyPad <b>Memory</b> I/O Ports			
Start	<input type="text" value="2500"/>		<input type="button" value="OK"/>
Address (Hex)	Address	Data	
09C4	2500	7	
09C5	2501	0	
09C6	2502	6	
09C7	2503	0	
09C8	2504	13	
09C9	2505	0	
09CA	2506	0	
09CB	2507	0	
09CC	2508	0	
09CD	2509	0	
09CE	2510	0	
09CF	2511	0	
09D0	2512	0	
09D1	2513	0	

OUTPUT:



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