

## 16-BIT SUBTRACTION

**EXP NO: 6**

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

### ALGORITHM:

- 1) Start the program by loading a register pair with the address of the 1st number.
- 2) Copy the data to another register pair.
- 3) Load the second number to the first register pair.
- 4) Subtract the two register pair contents.
- 5) Check for borrowings.
- 6) Store the value of difference and borrow in memory locations.
- 7) End.

### PROGRAM:

```
LHLD 2050  
  
XCHG  
  
LHLD 2052  
  
MVI C,00  
  
MOV A, E  
  
SUB L  
  
STA 2054  
  
MOV A, D  
  
SUB H  
  
STA 2055  
  
HLT
```

**INPUT:**

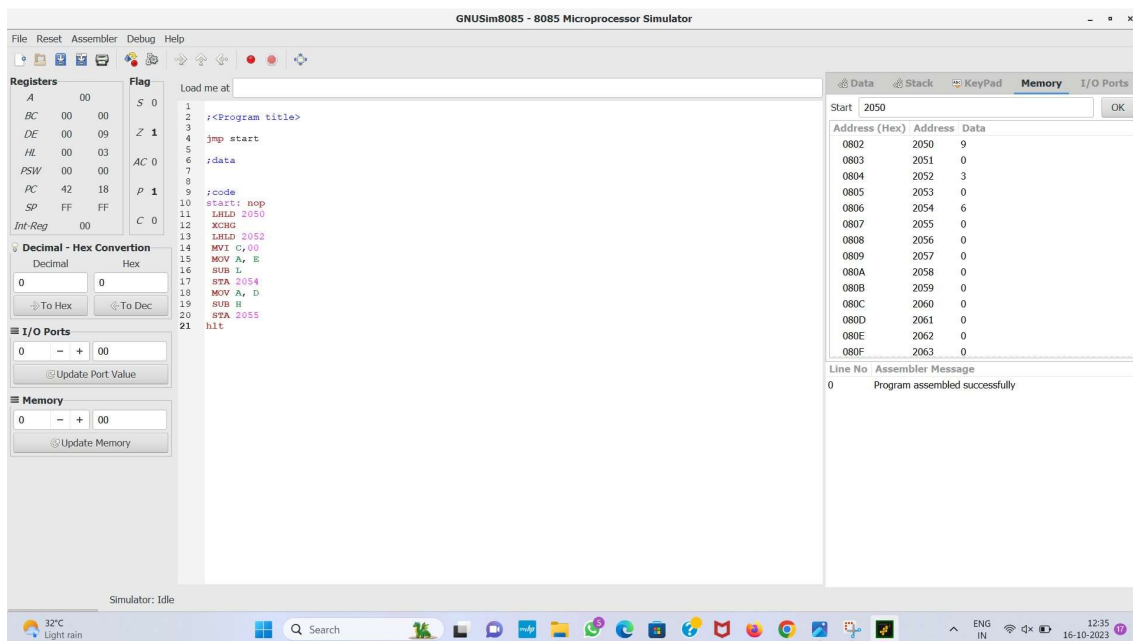
Start

2500

OK

Address (Hex)	Address	Data
09C4	2500	2
09C5	2501	0
09C6	2502	8
09C7	2503	0

**OUTPUT:**



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