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 address of 1st number.

2) Copy the data to another register pair.

3) Load the second number to first registre pair.

4) Subtract the two register pair contents.

5) Check for borrow.

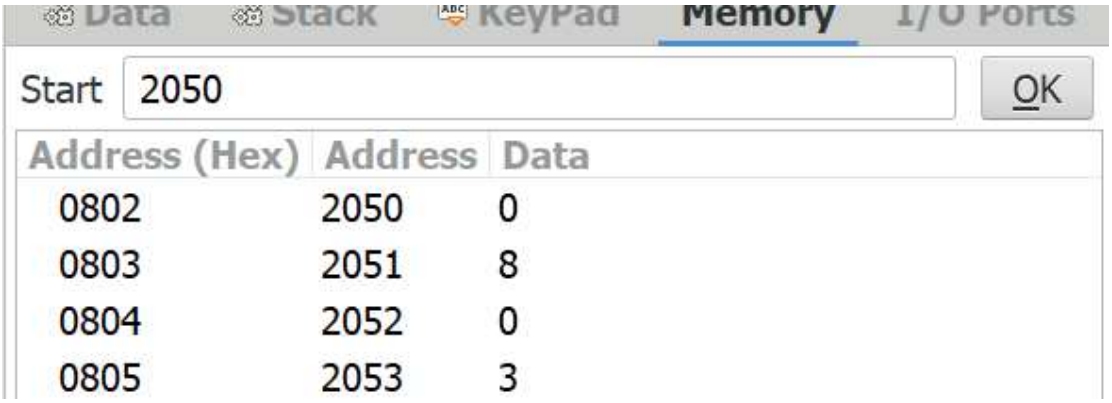
6) Store the value of difference and borrow in memory
locations.

7) End.

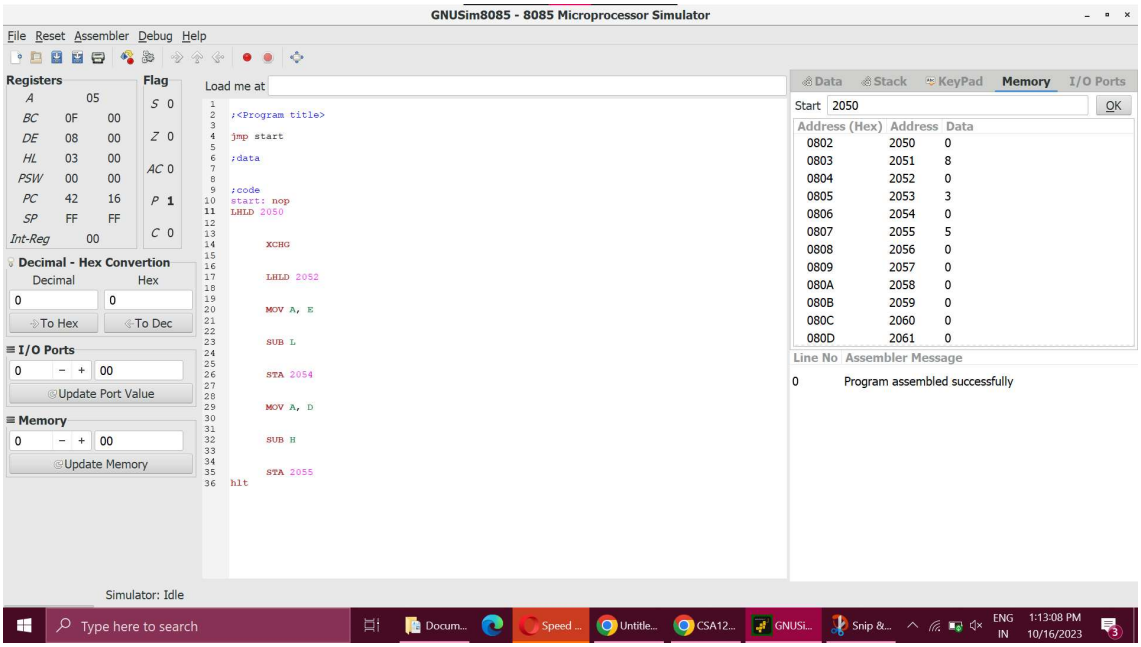
PROGRAM:

```
        LHLD
2050

        XCHG

        LHLD
2052

        MVI C,00

        MOV A, E

        SUB L

        STA 2054

        MOV A, D

        SUB H

        STA 2055

        HLT
```

INPUT:


Data
Stack
KeyPad
Memory
I/O Ports
Start
2050
OK
Address (Hex)
Address
Data
0802
2050
0
0803
2051
8
0804
2052
0
0805
2053
3

OUTPUT:


GNUSim8085 - 8085 Microprocessor Simulator
File Reset Assembler Debug Help
Registers
Flag
Load me at
Decimal - Hex Convertion
I/O Ports
Memory
Update Port Value
Update Memory
Simulator: Idle
Start 2050
OK
Address (Hex) Address Data
Line No Assembler Message
0 Program assembled successfully
Type here to search

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