EXP NO: 2

AIM:
To write an assembly language program to
implement 8-bit subtraction using 8085 processor.

ALGORITHM:

1) Start
the program by loading the first data into the accumulator.

2) Move
the data to a register.

3) Get
the second data and load it into the accumulator.

4) Subtract
the two register contents.

5) Check
for borrow.

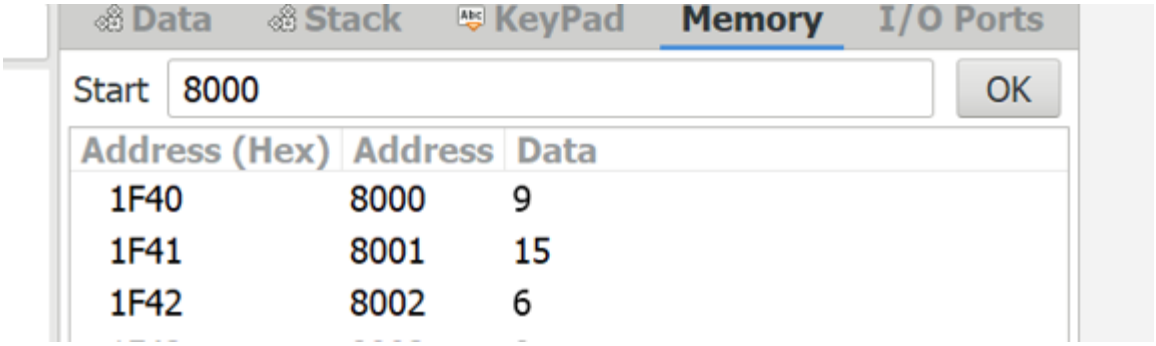
6) Store
the difference and borrow in the memory location.

7) Halt.

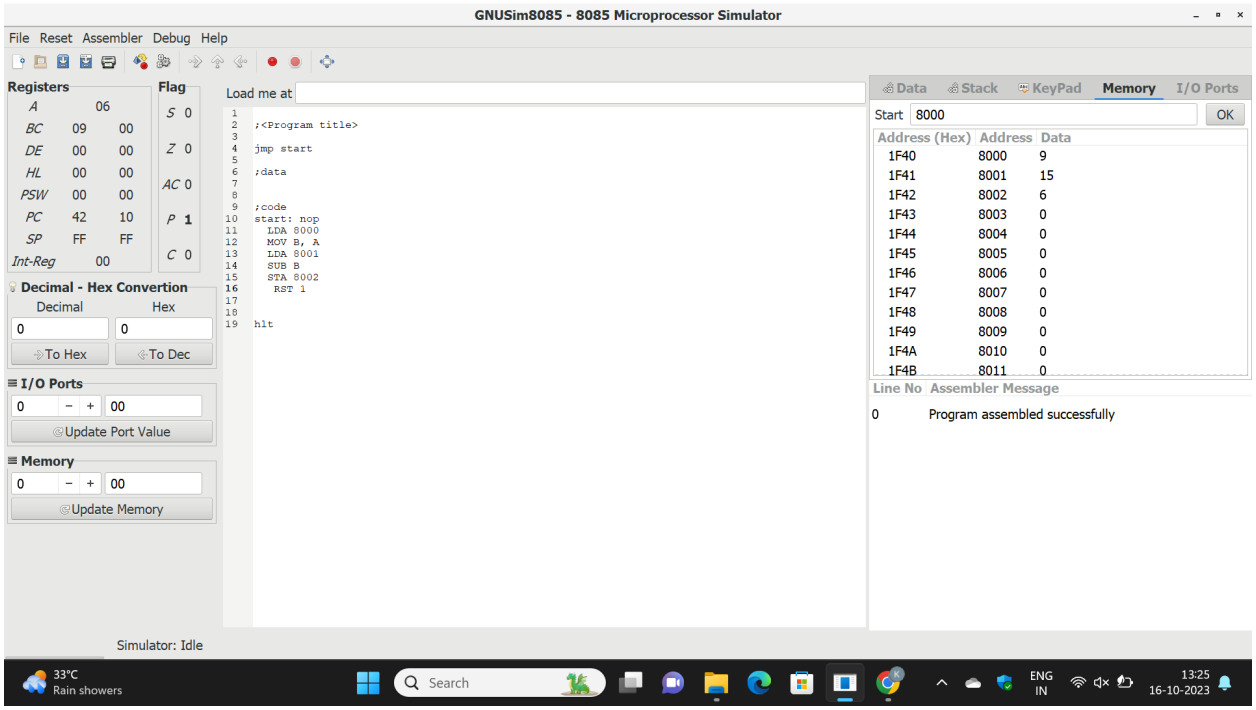
PROGRAM:

```
LDA 8000

MOV B, A

LDA 8001

SUB B

STA 8002

RST 1
```

INPUT:


Data
Stack
KeyPad
Memory
I/O Ports
Start
8000
OK
Address (Hex)
Address
Data
1F40
8000
9
1F41
8001
15
1F42
8002
6

OUTPUT:


GNUSim8085 - 8085 Microprocessor Simulator
File Reset Assembler Debug Help
Registers
Flag
Load me at
;<Program title>
jmp start
;data
;code
start: nop
LDA 8000
MOV B, A
LDA 8001
SUB B
STA 8002
RST 1
hlt
Decimal - Hex Convertion
I/O Ports
Memory
Update Port Value
Update Memory
Data
Stack
KeyPad
Memory
I/O Ports
Start
8000
OK
Address (Hex)
Address
Data
Line No
Assembler Message
0
Program assembled successfully
Simulator: Idle
33°C
Rain showers
Search
ENG
IN
13:25
16-10-2023

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