

## 8-BIT DIVISION

**EXP NO: 4**

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

**ALGORITHM:**

- 1) Start the program by loading a register pair with the address of memory location.
- 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) Increment the value of the carry.
- 6) Check whether the repeated subtraction is over.
- 7) Store the value of quotient and the remainder in the memory location.
- 8) Halt.

**PROGRAM:**

```
LDA 8501

MOV B, A

LDA 8500

MVI C,00

LOOP:  CMP B

        JC LOOP1

        SUB B

        INR C

        JMP LOOP

LOOP1:  STA 8502

        MOV A, C

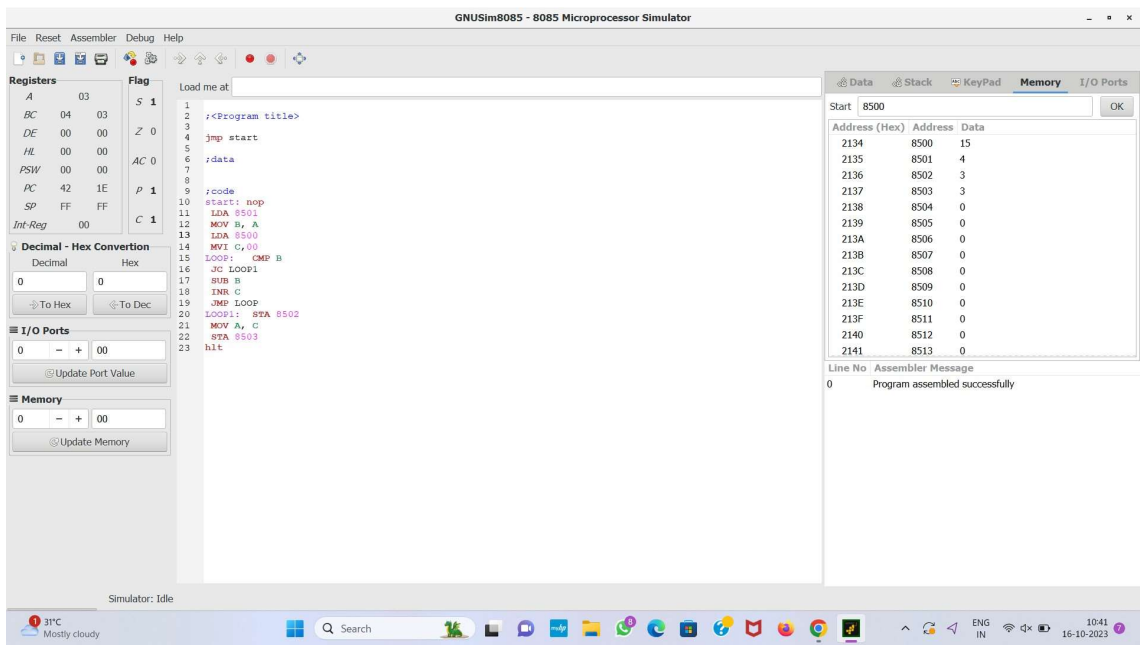
        STA 8503

        RST 1
```

INPUT:

Address (Hex)	Address	Data
2134	8500	15
2135	8501	4
2136	8502	3

OUTPUT:



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