

8-BIT DIVISION

EXP NO: 4

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

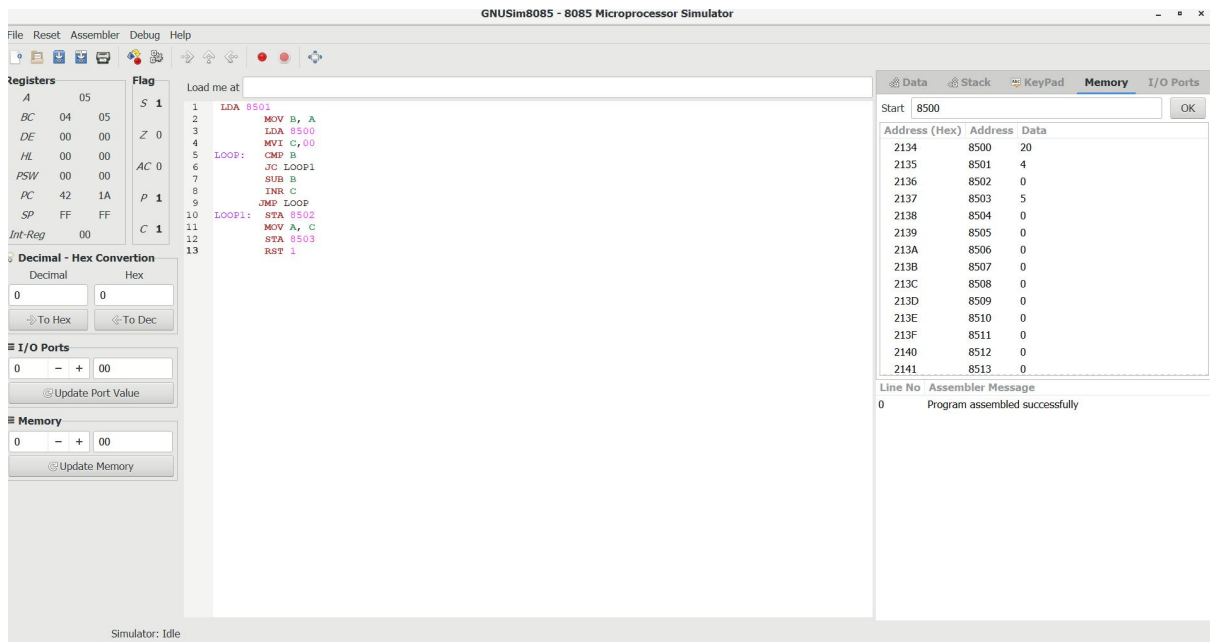
ALGORITHM:

- 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
STA 8503
DCR C
MOV A, C
LOOP1: STA 8502
RST 1
```

INPUT\OUTPUT:



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