

## 8-BIT DIVISION

### EXP NO: 4

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

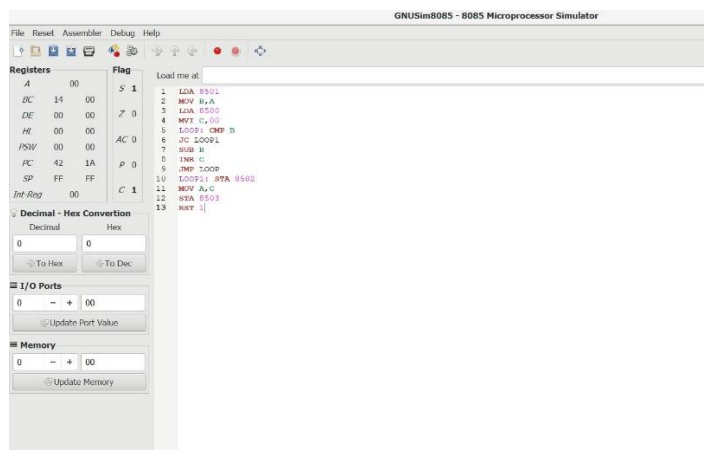
### ALGORITHM:

- 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:



## OUTPUT:

Data	Stack	Keypad	Memory	I/O Ports
Start		8501	OK	
Address (Hex)	Address	Data		
2135	8501	20		
2136	8502	0		
2137	8503	10		
2138	8504	0		
2139	8505	2		
213A	8506	0		
213B	8507	0		
213C	8508	0		
213D	8509	0		
213E	8510	0		
213F	8511	0		
2140	8512	0		
2141	8513	0		
2142	8514	0		
Line No	Assembler Message			
0	Program assembled successfully			

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