8-BIT DIVISION

EXP NO: 4

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

ALGORITHM:

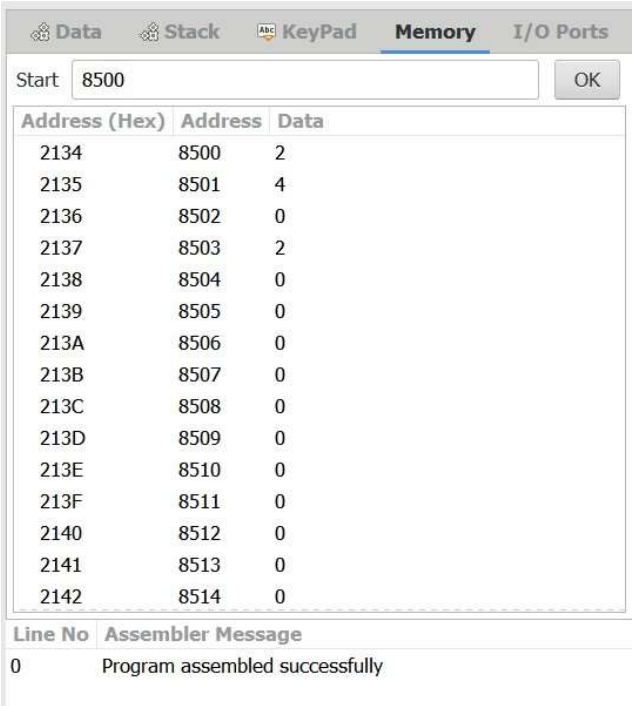
1) Start the program by loading a register pair with the address of memory location.
2) Move the data to a register.
3) Get the second data and load it into the accumulator.
4) Subtract the two register contents.
5) Increment the value of the carry.
6) Check whether the repeated subtraction is over.
7) Store the value of quotient and the reminder in the memory location.
8) Halt.

PROGRAM:

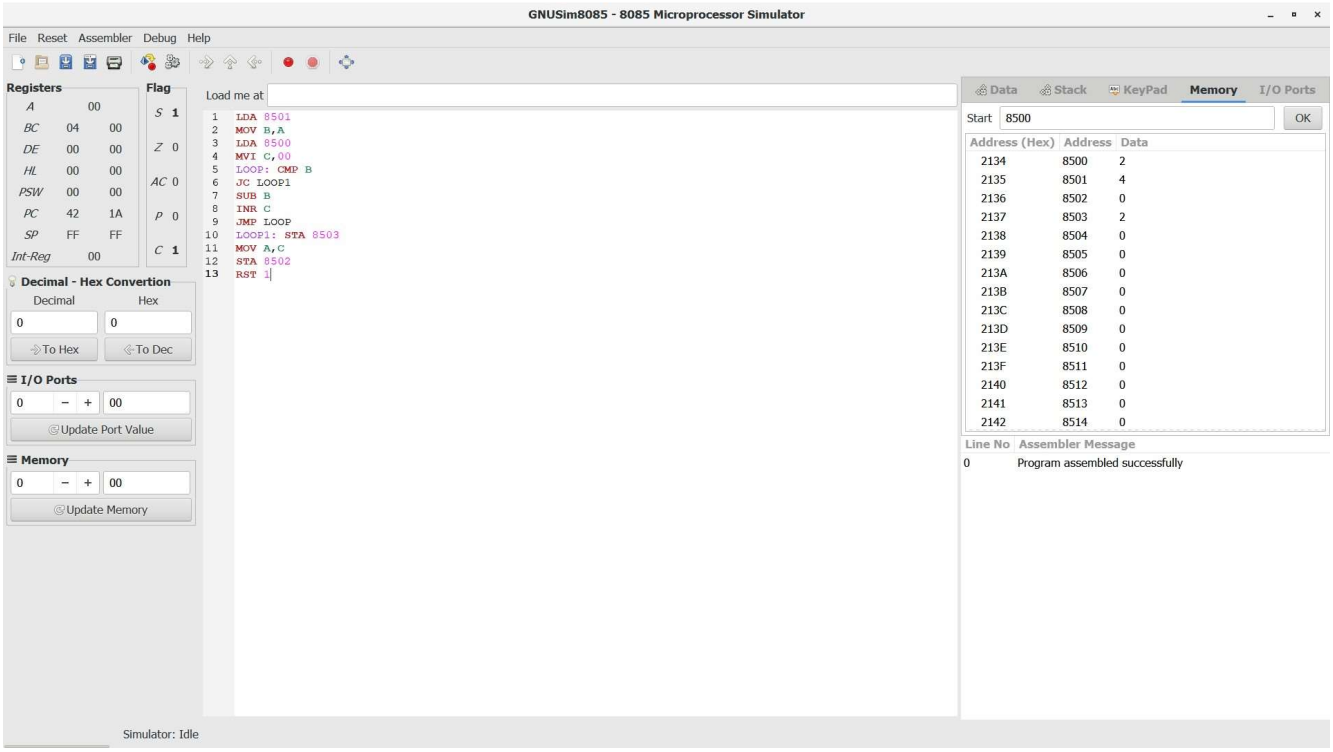
```
LDA 8501                                                    1
MOV B,                                                      1
LDA 8500     MVI C,00     LOOP:CMP                          12
JC LOOP1     SUB                                            12
INR C     JMP LOOP     STA 8503     DCR                     12
MOV A,                                                      12

LOOP1: STA 8502
RST 1
```

INPUT:



OUTPUT:



RESULT: Thus the program was executed successfully using 8085 processor simulator. **16-BIT ADDITION**