8-BIT MULTIPLICATION

EXP NO: 3

AIM:To write an assembly language program to implement 8-bit multiplication 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) Add the two register contents.
- 5) Increment the value of the carry.
- 6) Check whether the repeated addition is over.
- 7) Store the value of product and the carry in the memory location.
- 8) Halt.

PROGRAM:

LDA 8500

MOV B, A

LDA 8501

MOV C, A

CPI 00

JZ LOOP

XRA A

LOOP1: ADD B

DCR C

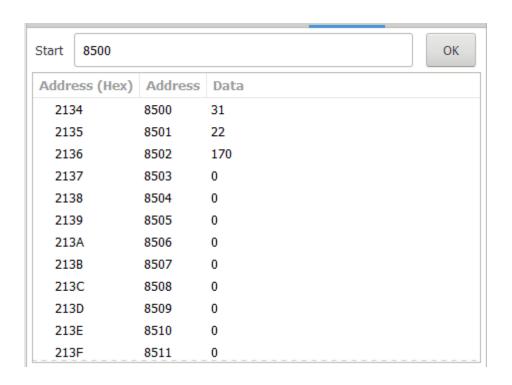
JZ LOOP

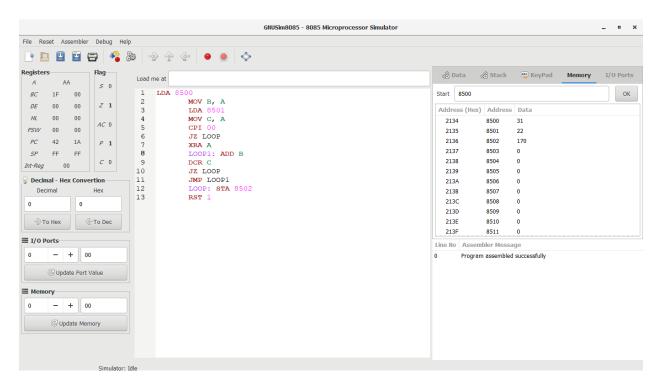
JMP LOOP1

LOOP: STA 8502

RST 1

INPUT & OUTPUT:





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