# **8-BIT MULTIPLICATION**

<b>EXP</b>	NO:	3
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**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:

1

LDA 8500

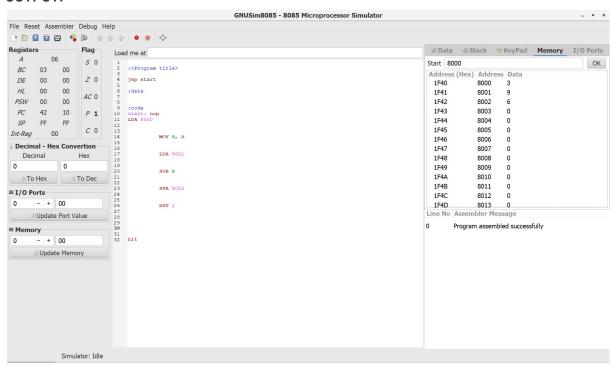
MOV B, A

LDA 8501 MOV C, A CPI 00 JZ LOOP XRA A LOOP1: ADD B DCR C JZ LOOP JMP LOOP1 LOOP: STA 8502 RST

# **INPUT:**



# **OUTPUT:**



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