## 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 8001

MOV C, A

**CPI 00** 

JZ LOOP

**XRAA** 

LOOP1: ADD E

DCR C

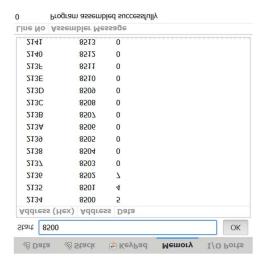
JZ LOOP

JMP LOOP1

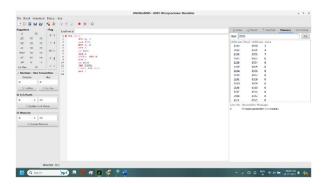
LOOP: STA 8002

RST 1

### **INPUT:**



# **OUTPUT:**



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