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 the product and the carry in the memory location.

8) Halt.

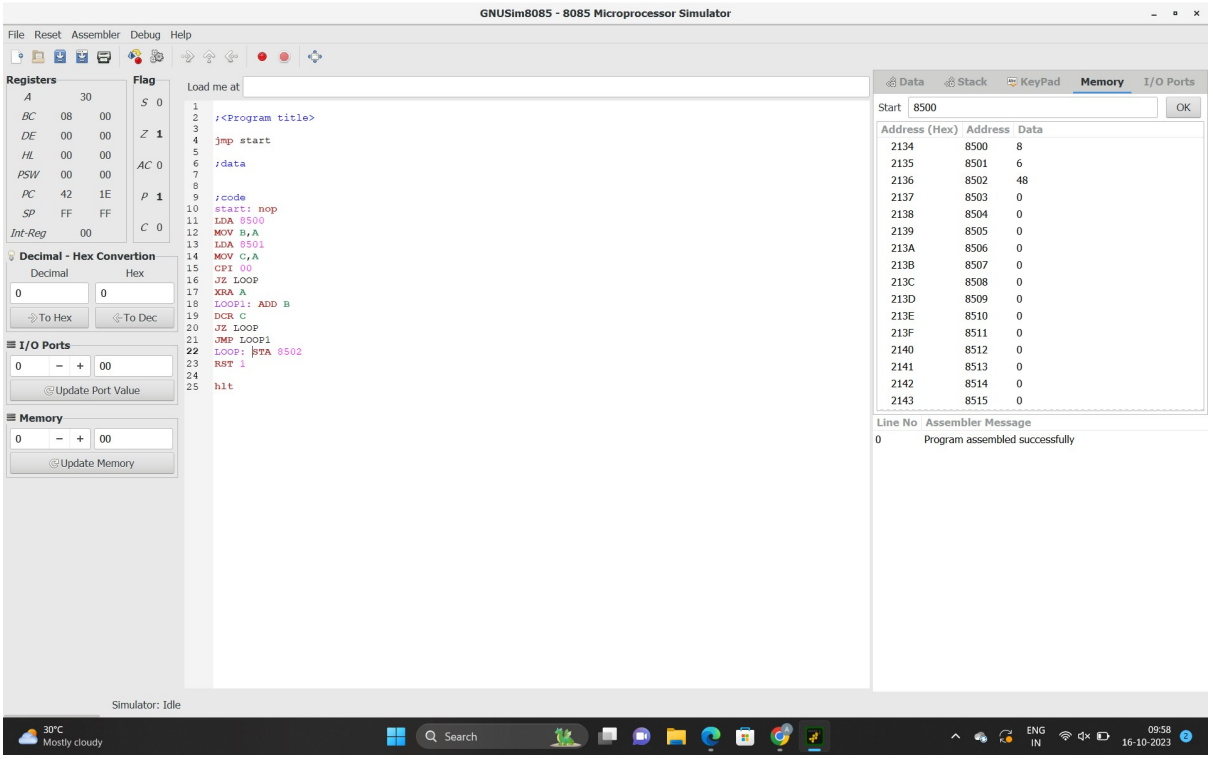
PROGRAM:

```
        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:

2134	8500	8
2135	8501	6

OUTPUT:



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