

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.

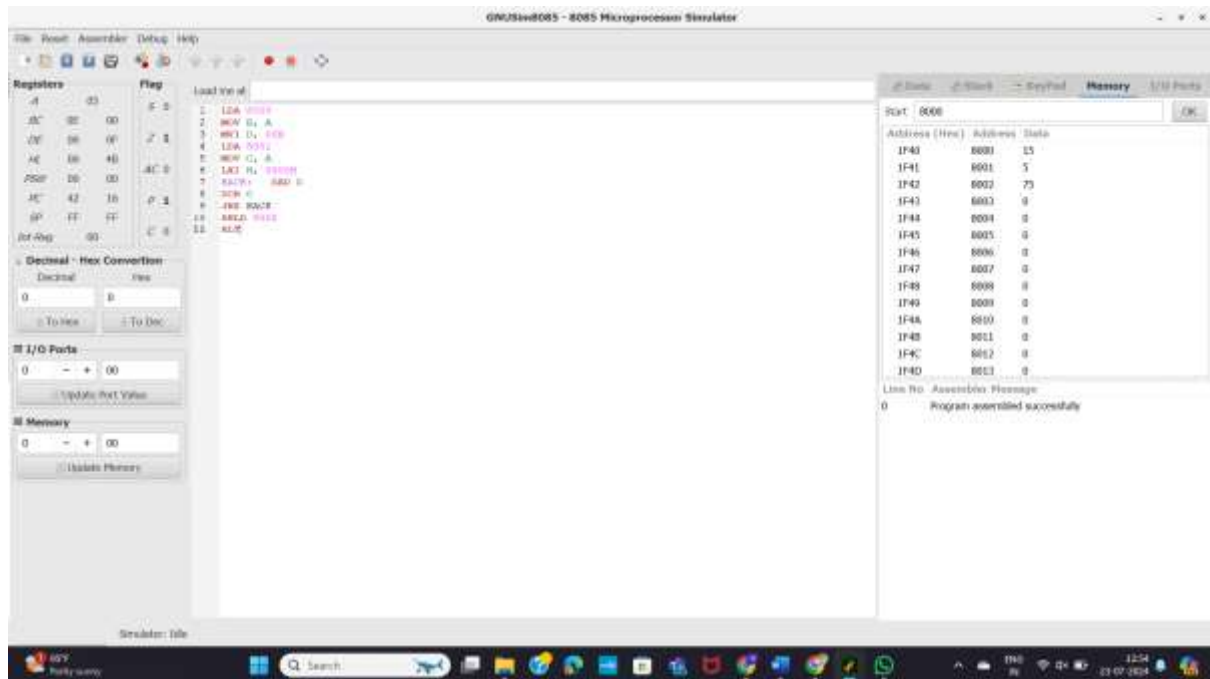
PROGRAM:

```
LDA 8000
MOV E, A
MVI D, 00H
LDA 8001
MOV C, A
LXI H, 0000H
BACK:    DAD D
DCR C
JNZ BACK
SHLD 8002
HLT
```

INPUT:

Address (Hex)	Address	Data
1F40	8000	15
1F41	8001	5
1F42	8002	75
1F43	8003	0

OUTPUT:



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