

8-BIT MULTIPLICATION

EXP NO: 3

AIM:

To write an assembly language program to implement 8-bit multiplication using 8085 processor.

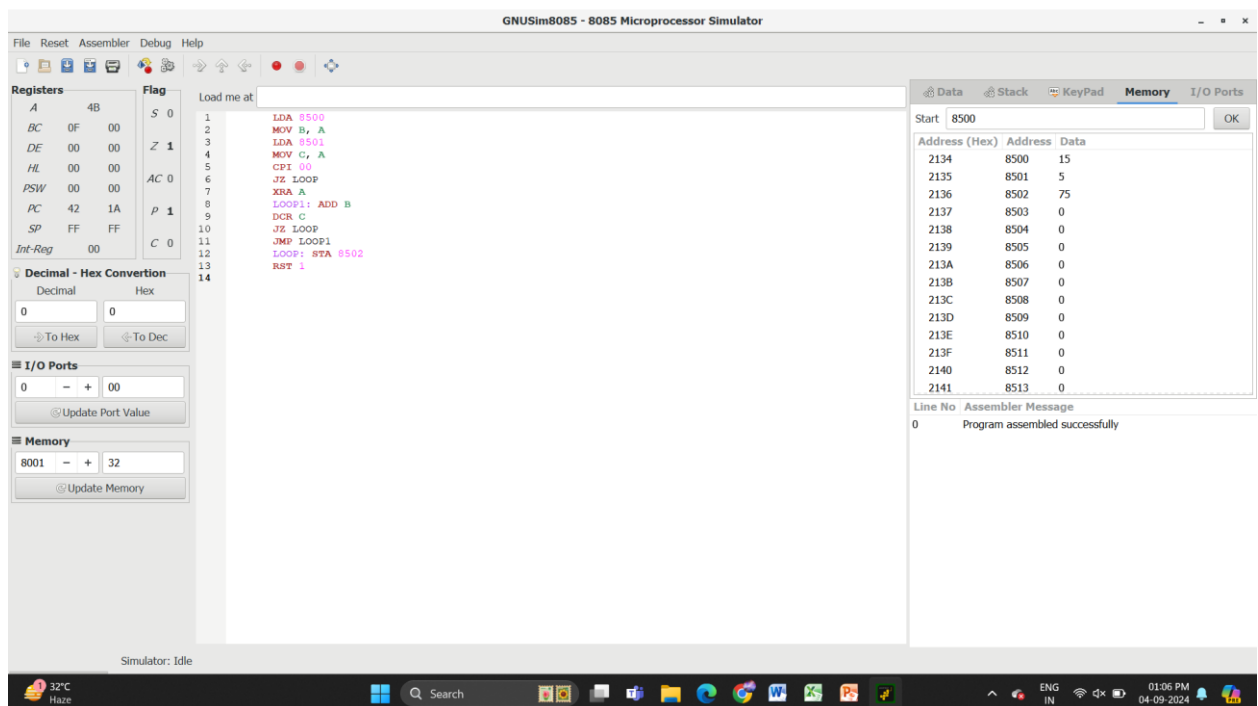
ALGORITHM:

- 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.