5.Write an assembly language program for multiplication of two 8-bit data A7 A6 A5 A4 A3 A2 A1 A0 and B7 B6 B5 B4 B3 B2 B1 B0 using 8085 processor.

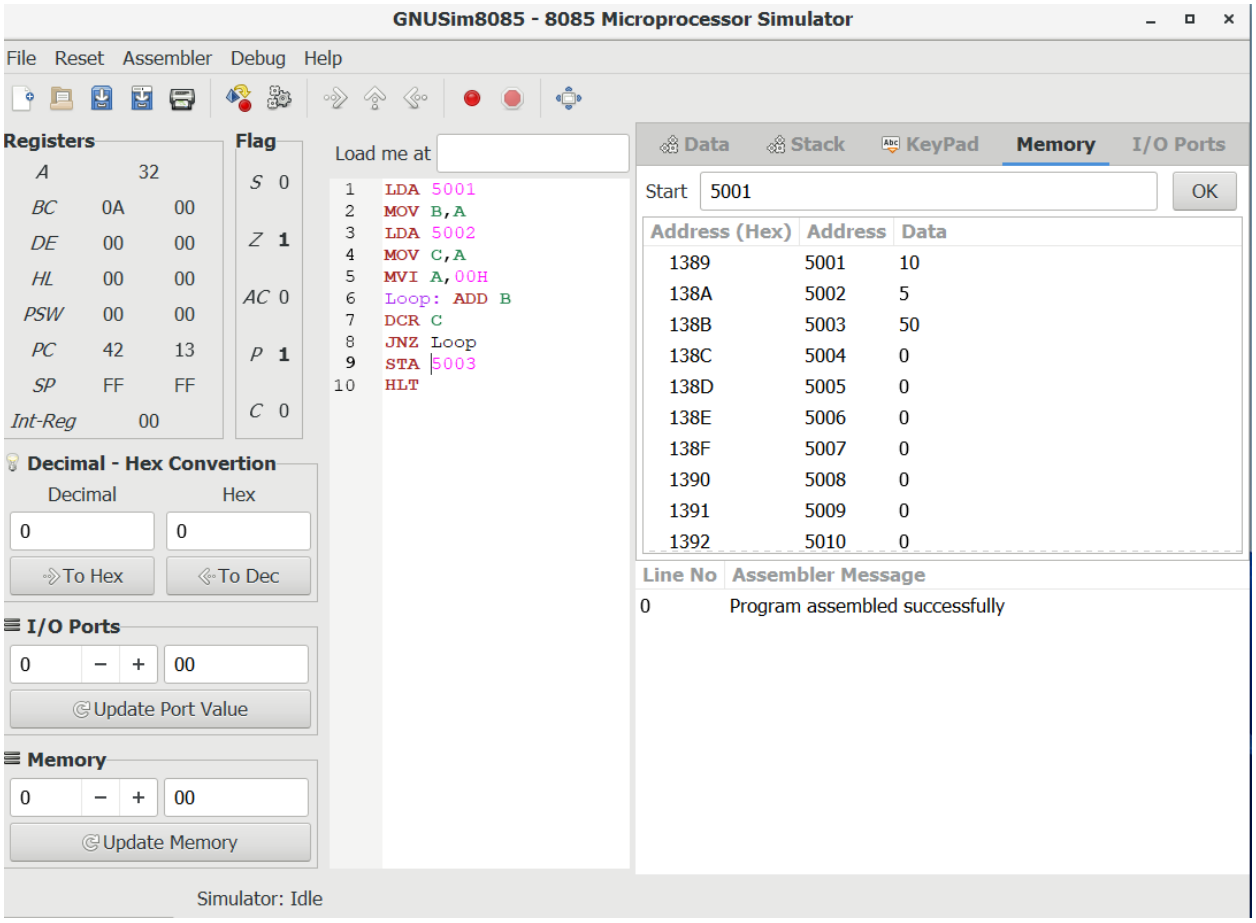
AIM: To perform the multiplication of two 8 bit numbers using 8085

ALGORITHM:

1) Start the program by loading HL register pair with address of memory location.
2) Move the data to a register (B register).
3) Get the second data and load into Accumulator.
4) Add the two register contents. 5) Check for carry.
6) Increment the value of carry.
7) Check whether repeated addition is over and store the value of product and carry in memory location.
8) Terminate the program.

PROGRAM:

```
LDA 5001
MOV B,A
LDA 5002
MOV C,A
MVI A,00H
Loop: ADD B
DCR C
JNZ Loop
STA 5003
HLT
```



OBSERVATION:

Input:

10 (5001)

5(5002)

Output:

50(5003)

RESULT:

Thus the program to multiply two 8-bit numbers was executed.

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