

16-BIT ADDITION

EXP NO: 5

AIM: To write an assembly language program to implement 16-bit addition using 8085 processor.

ALGORITHM:

- 1) Start the program by loading a register pair with address of 1st number.
- 2) Copy the data to another register pair.
- 3) Load the second number to the first register pair.
- 4) Add the two register pair contents.
- 5) Check for carry.
- 6) Store the value of sum and carry in memory locations.
- 7) Terminate the program.

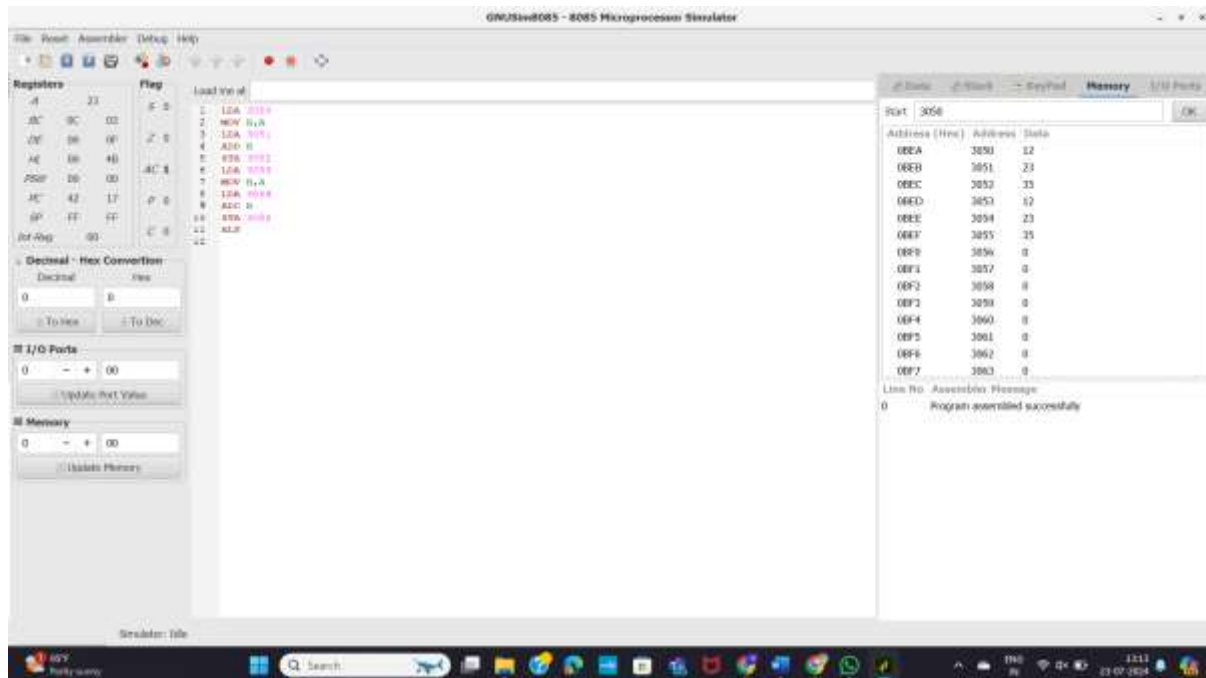
PROGRAM:

```
LDA 3050
MOV B,A
LDA 3051
ADD B
STA 3052
LDA 3053
MOV B,A
LDA 3054
ADC B
STA 3055
HLT
```

INPUT:

Address (Hex)	Address	Data
0BEA	3050	12
0BEB	3051	23
0BEC	3052	35
0BED	3053	12
0BEE	3054	23
0BEF	3055	35
0BF0	3056	0

OUTPUT:



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