3.Write an assembly language program for adding two 16-bit data using 8086 processor.

AIM:

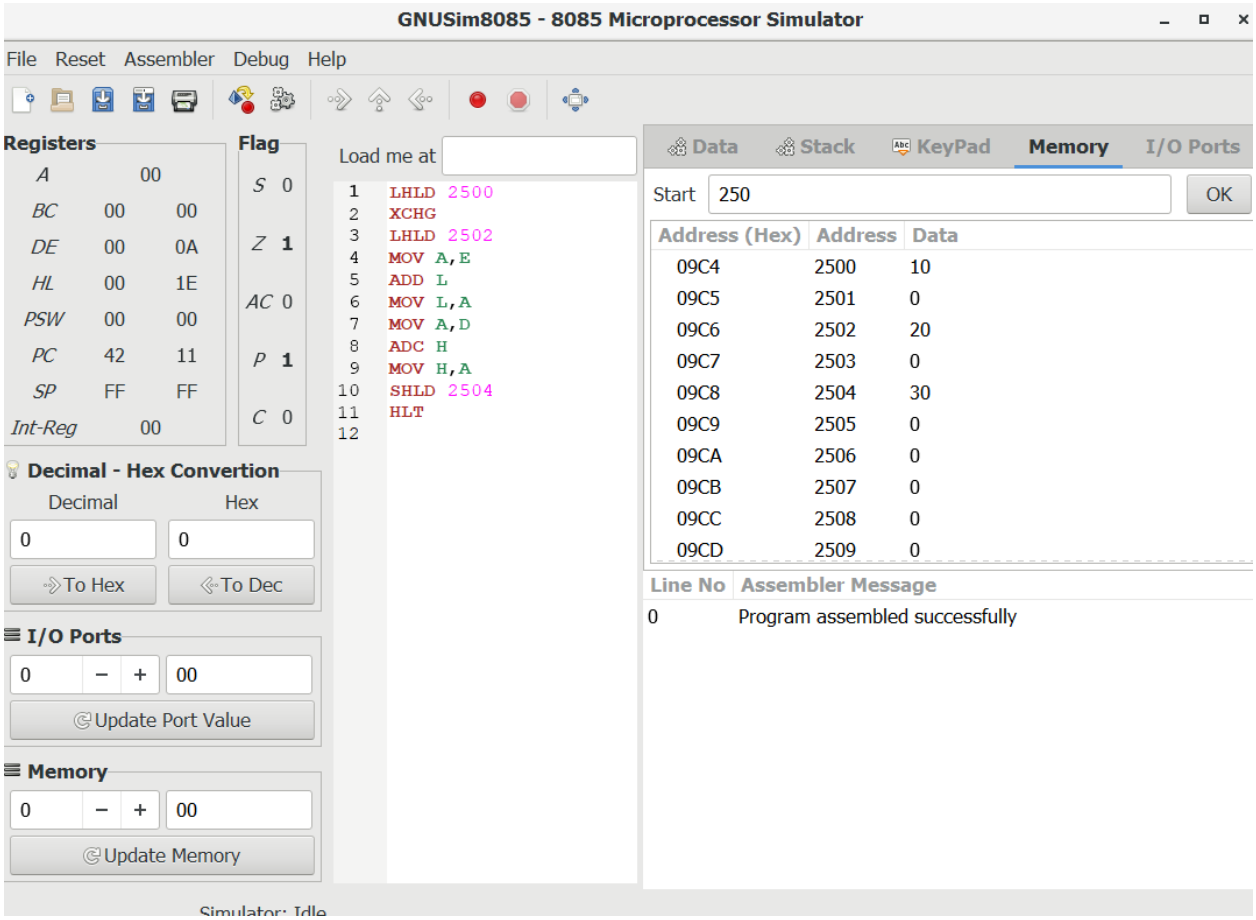
To perform addition of two 16 bit numbers using 8086 prosessor.

ALGORITHM:

1) Start the program by loading the first data into Accumulator.
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) Store the value of sum and carry in memory location.
7) Terminate the program

PROGRAM:

```
LHLD 2500
XCHG
LHLD 2502
MOV A,E
ADD L
MOV L,A
MOV A,D
ADC H
MOV H,A
SHLD 2504
HLT
```



OBSERVATION:

Input: 10(2500)
20(2052)
Output: 30(2054)

RESULT:

Thus the program to add two 16-bit numbers was executed successfully.