4. Write an assembly language program for subtracting two 16-bit data using 8086 process.

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. Subtract the two register contents.
- 5. Check for carry.
- 6. If carry is present take 2's complement of Accumulator.
- 7. Store the value of borrow in memory location.
- 8. Store the difference value (present in Accumulator) to a memory
- 9. location and terminate the program.

PROGRAM:

LHLD 2500

XCHG

LHLD 2502

MOV A,E

SUB L

MOV L,A

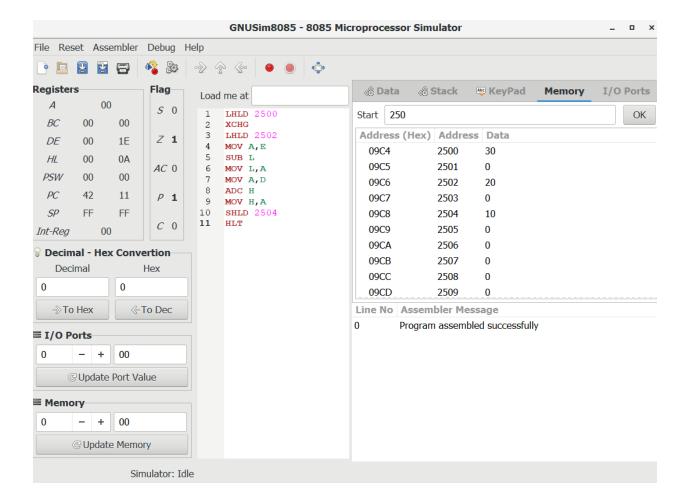
MOV A,D

ADC H

MOV H,A

SHLD 2504

HLT



OBSERVATION:

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

RESULT:

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