8-BIT ADDITION

EXP NO: 1

AIM:

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

ALGORITHM:

1) Start the program by loading the first data into the accumulator.

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) Check for carry.

6) Store

the value of sum and carry in the memory location.

7) Halt.

PROGRAM:

LDA 8500

MOV B, A

LDA 8501

ADD B

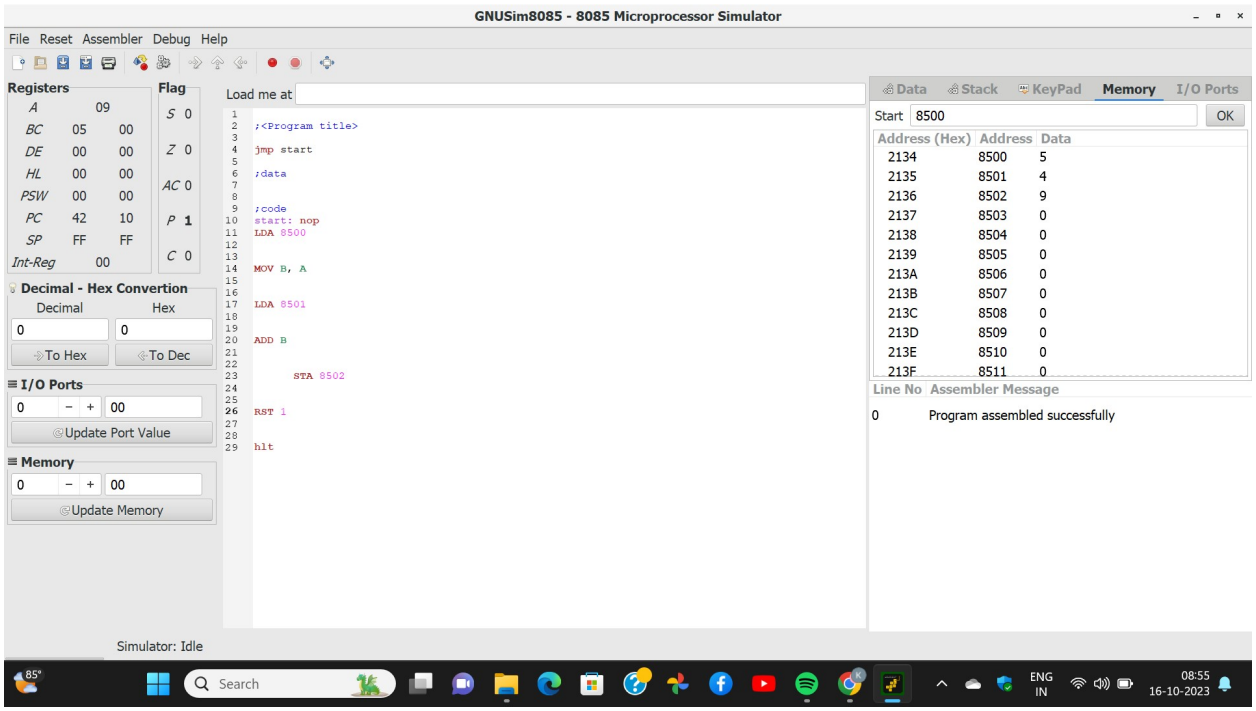
STA 8502

RST 1

INPUT:

Address (Hex)	Address	Data
2134	8500	5
2135	8501	4

OUTPUT:


GNUSim8085 - 8085 Microprocessor Simulator
File Reset Assembler Debug Help
Registers
A 09
BC 05 00
DE 00 00
HL 00 00
PSW 00 00
PC 42 10
SP FF FF
Int-Reg 00
Flag
S 0
Z 0
AC 0
P 1
C 0
Decimal - Hex Convertion
Decimal
Hex
To Hex
To Dec
I/O Ports
Update Port Value
Memory
Update Memory
Load me at
;<Program title>
jmp start
;data
;code
start: nop
LDA 8500
MOV B, A
LDA 8501
ADD B
STA 8502
RST 1
hlt
Data Stack KeyPad Memory I/O Ports
Start 8500
OK
Address (Hex) Address Data
2134 8500 5
2135 8501 4
2136 8502 9
2137 8503 0
2138 8504 0
2139 8505 0
213A 8506 0
213B 8507 0
213C 8508 0
213D 8509 0
213E 8510 0
213F 8511 0
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle
Search
ENG
IN
08:55
16-10-2023

RESULT:

Thus the program was executed successfully using 8085 processor simulator.