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.

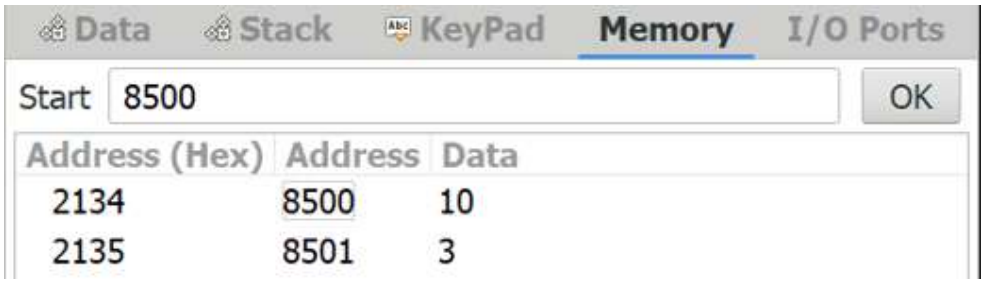
6) Store the value of sum and carry in the memory location.

7) Halt.

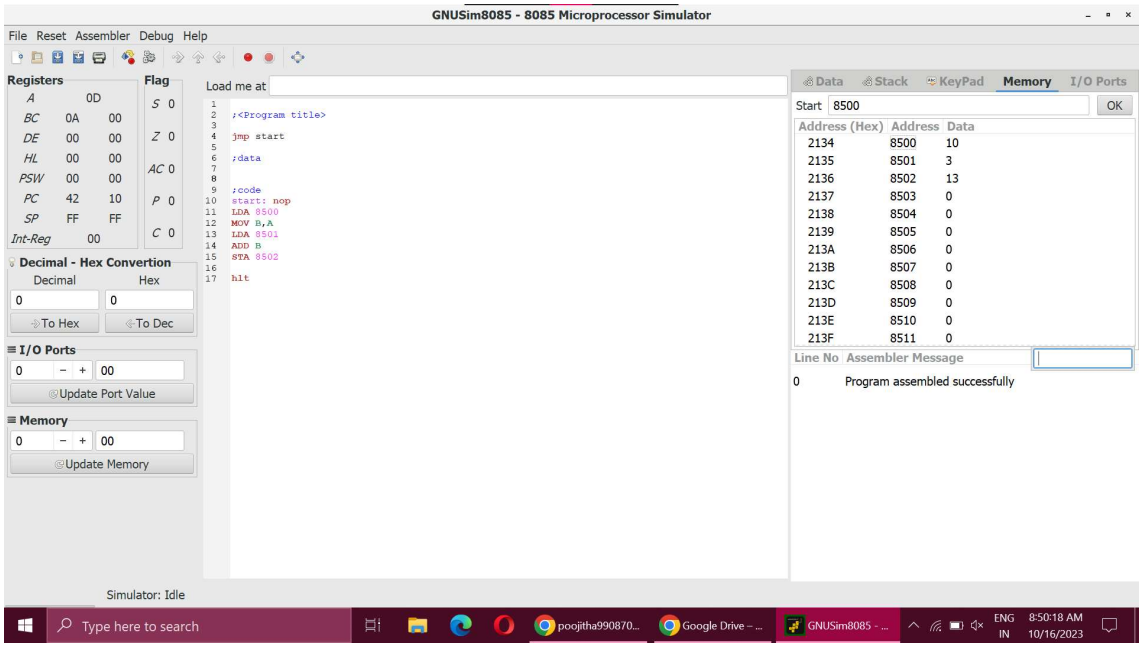
PROGRAM:

```
LDA 8500

MOV B, A

LDA 8501

ADD B

        STA 8502

RST 1
```

INPUT:



OUTPUT:


GNUSim8085 - 8085 Microprocessor Simulator
File Reset Assembler Debug Help
Registers
Flag
Load me at
;<Program title>
jmp start
;data
;code
start: nop
LDA 8500
MOV B,A
LDA 8501
ADD B
STA 8502
hlt
Data Stack KeyPad Memory I/O Ports
Start 8500 OK
Address (Hex) Address Data
2134 8500 10
2135 8501 3
2136 8502 13
Decimal - Hex Convertion
Decimal Hex
To Hex To Dec
I/O Ports
Update Port Value
Memory
Update Memory
Line No Assembler Message
0 Program assembled successfully
Simulator: Idle
Type here to search
ENG IN 8:50:18 AM 10/16/2023

RESULT:

Thus the program was executed successfully using 8085 processor simulator.