

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:

2134	8500	10
2135	8501	4

OUTPUT:

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

A	0E
BC	0A 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	0
C	0

Load me at

```

1
2 ;<Program title>
3
4 jmp start
5
6 ;data
7
8
9 ;code
10 start: nop
11 LDA 8500
12 MOV B,A
13 LDA 8501
14 ADD B
15 STA 8502
16 RST 1
17 hlt

```

Start 8500 OK

Address (Hex)	Address	Data
2134	8500	10
2135	8501	4
2136	8502	14
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
2140	8512	0
2141	8513	0
2142	8514	0

I/O Ports

0 - + 00

Update Port Value

Memory

0 - + 00

Update Memory

Line No	Assembler Message
0	Program assembled successfully

RESULT:

Thus the program was executed successfully using 8085 processor simulator.