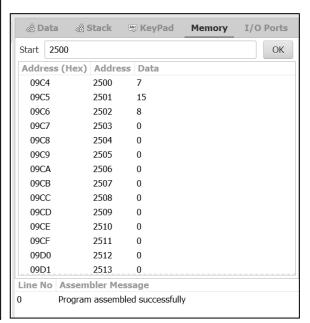## Practical-8

Aim: Write a Program Using 8085 & Verify for:
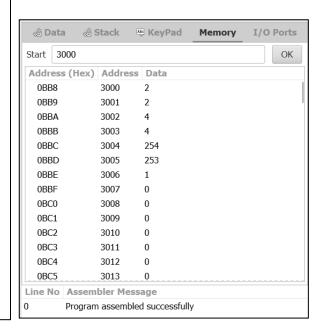
1. Subtraction of Two 8-Bit Numbers. (Display Of Borrow)

```
 1
 2    ;<Program title>
 3
 4    jmp start
 5
 6    ;data
 7
 8
 9    ;code
10    start: nop
11
12    mvi  c, 00
13    lhld  2500
14    mov  a, h
15    sub  l
16    jnc  LOOP
17    inr  c
18    LOOP: sta  2502
19    mov  a, c
20    sta  2503
21
22    hlt
```

Address (Hex)	Address	Data
09C4	2500	7
09C5	2501	15
09C6	2502	8
09C7	2503	0
09C8	2504	0
09C9	2505	0
09CA	2506	0
09CB	2507	0
09CC	2508	0
09CD	2509	0
09CE	2510	0
09CF	2511	0
09D0	2512	0
09D1	2513	0

Start 2500   OK

Data   Stack   KeyPad   **Memory**   I/O Ports

Line No   Assembler Message
0   Program assembled successfully

2. Subtraction of Two 16-Bit Numbers. (Display Of Borrow)

```
 1
 2    ;<Program title>
 3
 4    jmp start
 5
 6    ;data
 7
 8
 9    ;code
10    start: nop
11
12    lhld  3000
13    xchg
14    lhld  3002
15    mvi  b, 00
16    mvi  c, 00
17    mov  a, e
18    sub  l
19    jnc  LOOP
20    inr  c
21    LOOP: mov  e, a
22    mov  a, d
23    sub  c
24    sub  h
25    jnc  LOOP2
26    inr  b
27    LOOP2: mov  d, a
28    xchg
29    shld 3004
30    mov  a, b
31    sta  3006
32
33    hlt
```

Address (Hex)	Address	Data
0BB8	3000	2
0BB9	3001	2
0BBA	3002	4
0BBB	3003	4
0BBC	3004	254
0BBD	3005	253
0BBE	3006	1
0BBF	3007	0
0BC0	3008	0
0BC1	3009	0
0BC2	3010	0
0BC3	3011	0
0BC4	3012	0
0BC5	3013	0

Start 3000   OK

Data   Stack   KeyPad   **Memory**   I/O Ports

Line No   Assembler Message
0   Program assembled successfully

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