Practical-8
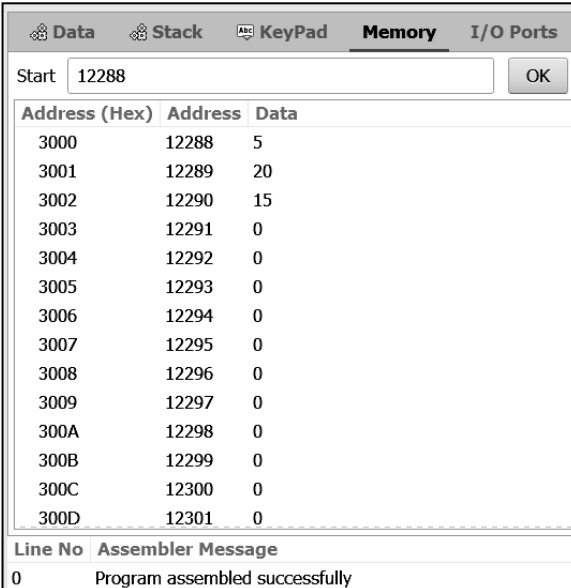
Aim: Write a Program Using 8085 & Verify for:

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   lxi h, 3000H
13   mov b, m
14   inx h
15   mov a, m
16   sub b
17   mvi b, 00H
18   jnc loop
19   inr b
20   loop: sta 3002H
21   mov a, b
22   sta 3003H
23
24   hlt
```

Data	Stack	KeyPad	Memory	I/O Ports

Start 12288   OK

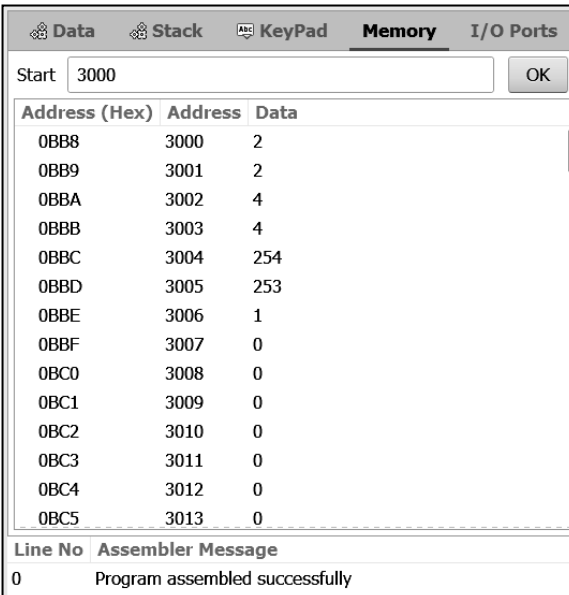| Address (Hex)	Address	Data
3000	12288	5
3001	12289	20
3002	12290	15
3003	12291	0
3004	12292	0
3005	12293	0
3006	12294	0
3007	12295	0
3008	12296	0
3009	12297	0
300A	12298	0
300B	12299	0
300C	12300	0
300D	12301	0

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
```

Data	Stack	KeyPad	Memory	I/O Ports

Start 3000   OK

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

Line No	Assembler Message
0	Program assembled successfully

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