

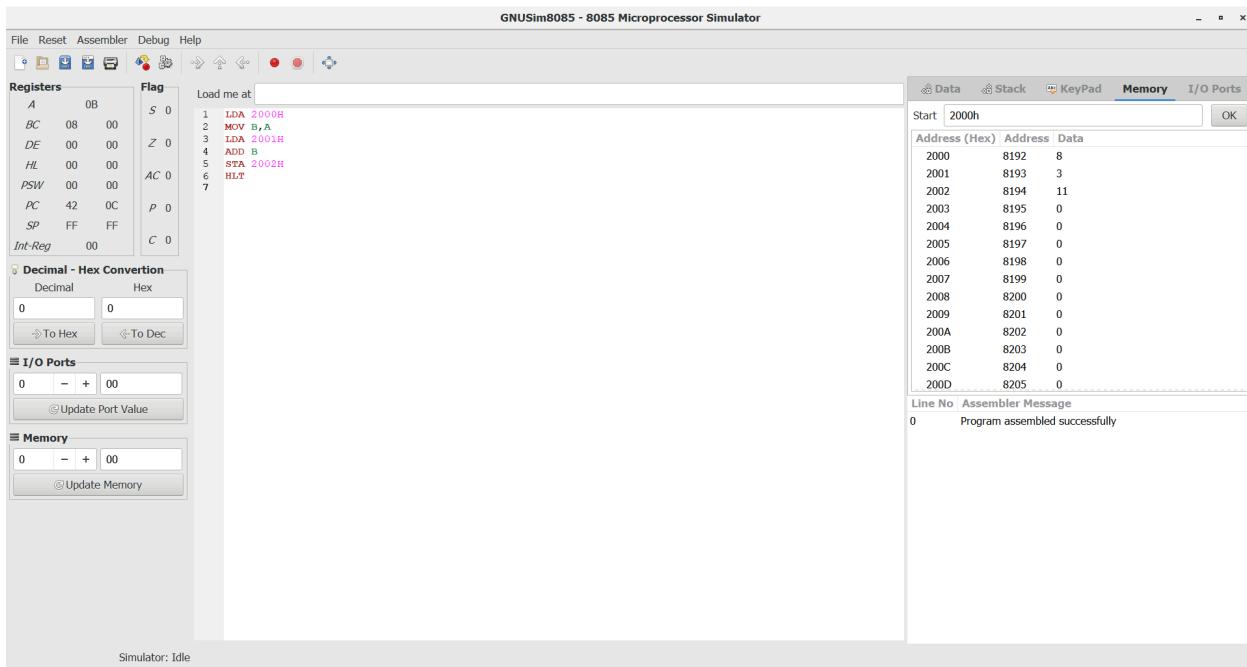


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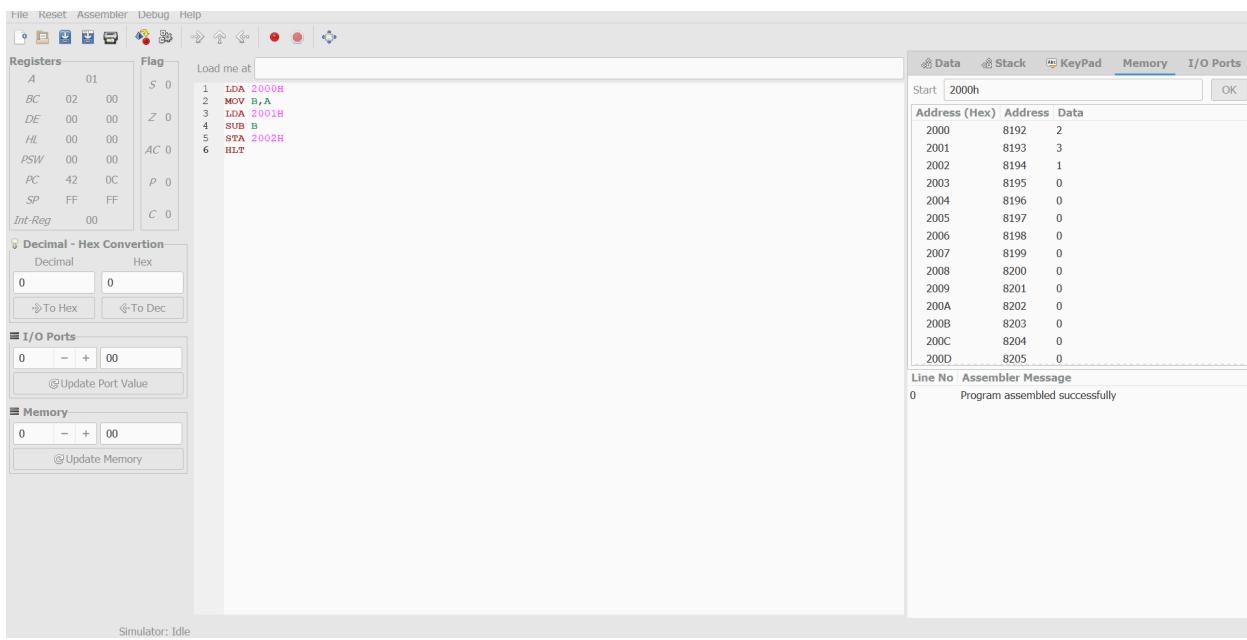
**Reg.No:192421200**

**Course code:CSA1257**

**Course Name: COMPUTER  
ARCHITECTURE  
MICROPROCESSOR 8085**



# 1: Add



# 2:sub

The screenshot shows a Z80 assembly debugger interface. The assembly code in the central pane is:

```

1 LDA $0050
2 MOV B, A
3 LDA $0051
4 MOV C, A
5 MVN D, 00
6 LOOP: ADD B
7 DCR C
8 JNZ LOOP
9 STA $0052
10 HLT

```

The Registers pane shows:

Register	A	B	C	D	PC	SP
A	14				42	FF
BC	04 00					
DE	00 00					
HL	00 00					
PSW	00 00					
PC	42 13					
SP	FF FF					
Int-Reg	00					

The Flag pane shows:

Flag	S	Z	P
S	0		
Z	1		
P	1		
C	0		

The Memory pane shows the memory starting at address 8050:

Address (Hex)	Address	Data
1F72	8050	4
1F73	8051	5
1F74	8052	20
1F75	8053	0
1F76	8054	0
1F77	8055	0
1F78	8056	0
1F79	8057	0
1F7A	8058	0
1F7B	8059	0
1F7C	8060	0
1F7D	8061	0
1F7E	8062	0
1F7F	8063	0

The I/O Ports pane shows:

I/O Ports	Value
0	- + 00

The status bar at the bottom right says "Program assembled successfully".

## 3: Multiply

The screenshot shows a Z80 assembly debugger interface. The assembly code in the central pane is:

```

1 LDA $0050
2 MOV B, A
3 LDA $0051
4 MOV C, A
5 MVN D, 00
6 LOOP: MOV A, B
7 SUB D
8 DC END
9 MOV B, A
10 INR D
11 JMZ LOOP
12 END: MOV A, D
13 STA $0052
14 MOV A, B
15 STA $0053
16 HLT

```

The Registers pane shows:

Register	A	B	C	D	PC	SP
A	00				42	FF
BC	00 02					
DE	05 00					
HL	00 00					
PSW	00 00					
PC	42 1D					
SP	FF FF					
Int-Reg	00					

The Flag pane shows:

Flag	S	Z	P
S	1		
Z	0		
P	0		
C	1		

The Memory pane shows the memory starting at address 8050:

Address (Hex)	Address	Data
1F72	8050	10
1F73	8051	2
1F74	8052	5
1F75	8053	0
1F76	8054	0
1F77	8055	0
1F78	8056	0
1F79	8057	0
1F7A	8058	0
1F7B	8059	0
1F7C	8060	0
1F7D	8061	0
1F7E	8062	0
1F7F	8063	0

The I/O Ports pane shows:

I/O Ports	Value
0	- + 00

The status bar at the bottom right says "Program assembled successfully".

## 4: Divide

The screenshot shows a Z80 assembly debugger interface. On the left, the Registers window displays the following values:

Register	Value
A	05
BC	05 02
DE	03 02
HL	04 03
PSW	00 00
PC	42 0F
SP	FF FF
Int-Reg	00

The Flag window shows S=1, Z=0, AC=0, P=0, C=0.

The Assembly window contains the following code:

```

Load me at: 8000
1 LDA 8000
2 MOV B,A
3 LDA 8001
4 STA 8000
5 MOV A,B
6 STA 8001
7 HLT
8

```

The Memory window shows the memory dump starting at address 8000:

Address (Hex)	Address	Data
1F40	8000	10
1F41	8001	5
1F42	8002	0
1F43	8003	0
1F44	8004	0
1F45	8005	0
1F46	8006	0
1F47	8007	0
1F48	8008	0
1F49	8009	0
1F4A	8010	0
1F4B	8011	0
1F4C	8012	0
1F4D	8013	0

The status bar at the bottom right says "Program assembled successfully".

## 5:Swap

The screenshot shows a Z80 assembly debugger interface. On the left, the Registers window displays the following values:

Register	Value
A	F0
BC	00 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 08
SP	FF FF
Int-Reg	00

The Flag window shows S=0, Z=0, AC=0, P=0, C=0.

The Assembly window contains the following code:

```

Load me at: 2000
1 LDA 2000
2 CMA
3 STA 2001
4 HLT
5

```

The Memory window shows the memory dump starting at address 2000:

Address (Hex)	Address	Data
07D0	2000	15
07D1	2001	240
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0
07DD	2013	0

The status bar at the bottom right says "Program assembled successfully".

## 6:1s Compliment

Registers

A	FA
BC	00 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 09
SP	FF FF
Int-Reg	00

Flag

S	1
Z	0
AC	0
P	1
C	0

Load me at:

```

1 LDA 2000
2 ADD A,A
3 INR A
4 STA 2001
5 HLT
6

```

Data Stack KeyPad Memory I/O Ports

Start: 2000 OK

Address (Hex) Address Data

07D0	2000	6
07D1	2001	250
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0
07DD	2013	0

Line No Assembler Message

0 Program assembled successfully

## 7:2s Compliment

Registers

A	01
BC	00 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 0E
SP	FF FF
Int-Reg	00

Flag

S	0
Z	0
AC	1
P	0
C	0

Load me at:

```

1 LDA 2000
2 ADD A,A
3 JZ EVEN
4 MVI A,01
5 STA 2001
6 HLT
7 EVEN: MVI A,00
8 STA 2001
9 HLT
10

```

Data Stack KeyPad Memory I/O Ports

Start: 2000 OK

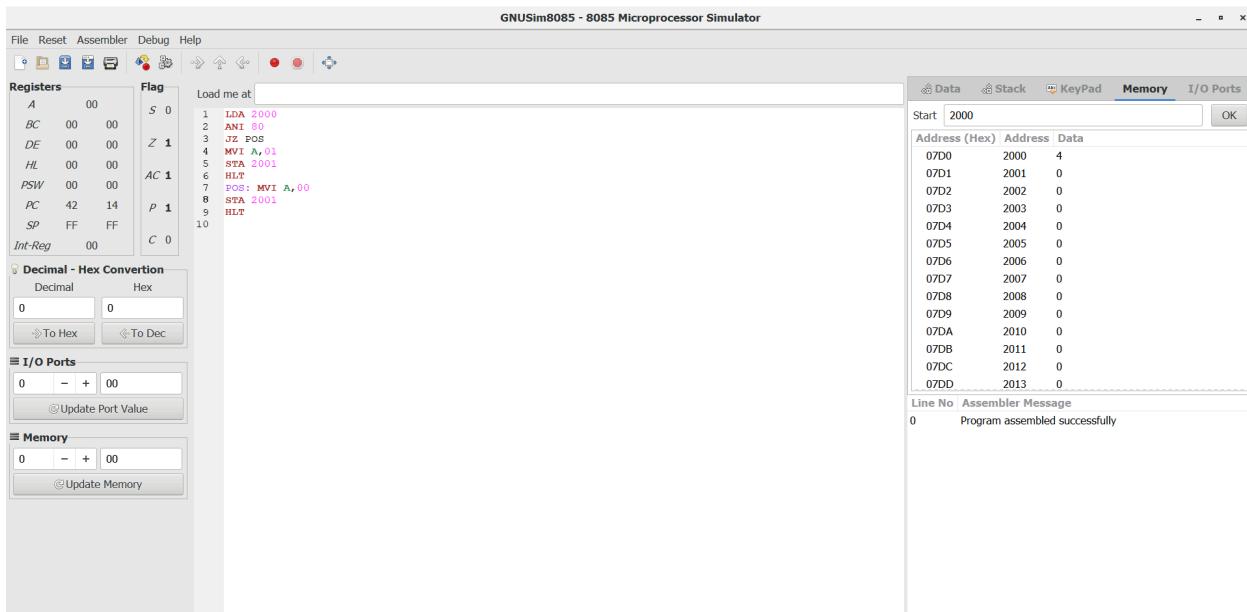
Address (Hex) Address Data

07D0	2000	3
07D1	2001	1
07D2	2002	0
07D3	2003	0
07D4	2004	0
07D5	2005	0
07D6	2006	0
07D7	2007	0
07D8	2008	0
07D9	2009	0
07DA	2010	0
07DB	2011	0
07DC	2012	0
07DD	2013	0

Line No Assembler Message

0 Program assembled successfully

## 8:Odd or Even



## 9:Positive or Negative