
Experiment Title.02

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Branch: CSE

Section/Group: 10/A

Semester: 4th

Date of Performance:17/02/2021

Subject Name: Microprocessor and interfacing

Subject Code: CSP-277

1. Aim/Overview of the practical:

Addition of two 8bit numbers, sum 8 bit.

2. Task to be done:

Here, we will write the code in 8085 simulator to add 2 8bit numbers , sum 8 bit.

3. Apparatus/Simulator used (For applied/experimental sciences/materials based labs):

8085 Simulator is used in this experiment .

4.Description/ Code:

LXI H,1000

MOV A,M

INX H

MOV B,M

MVI C,00

ADD B

JNC 000D

INR C

MOV M,A

INX H

MOV M,C

HLT

5. Result/Output/Writing Summary:

8085 Simulator

File Edit Tools Settings Simulation Subroutine View Load Sample Program Help

Editor Assembler Registers Memory Devices

Assembler

* Address	Label	Mnemonics	Hexcode	Bytes	M-Cycles	T-States
✓ 0000		LXI H,1000	21	3	3	10
0001			00			
0002			10			
✓ 0003		MOV A,M	7E	1	2	7
✓ 0004		INX H	23	1	1	6
✓ 0005		MOV B,M	46	1	2	7
✓ 0006		MVI C,00	0E	2	2	7
0007			00			
✓ 0008		ADD B	80	1	1	4
✓ 0009		JNC 000D	D2	3	3	10
000A			0D			
000B			00			
✓ 000C		INR C	0C	1	1	4
✓ 000D		MOV M,A	77	1	2	7
✓ 000E		INX H	23	1	1	6
✓ 000F		MOV M,C	71	1	2	7
✓ 0010		HLT	76	1	2	5

Simulate

Start From → 0000

Backward Stop Forward

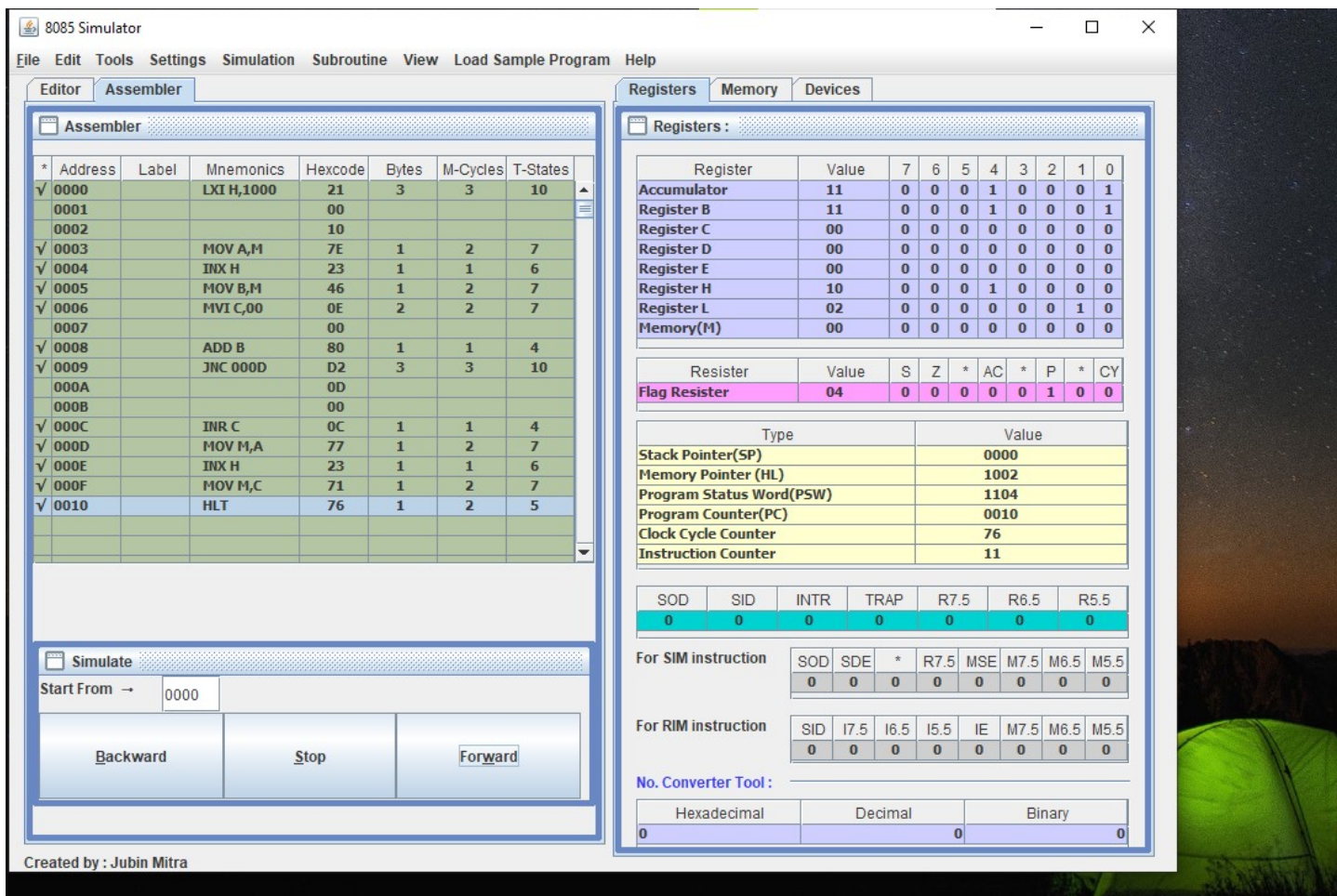
Memory Editor

Memory Range: 0000 ---- FFFF

Memory Address	Value
0000	21
0002	10
0003	7E
0004	23
0005	46
0006	0E
0008	80
0009	D2
000A	0D
000C	0C
000D	77
000E	23
000F	71
0010	76
1000	10
1001	11

☐ Show entire memory content
☒ Show only loaded memory location
☐ Store directly to specified memory location

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8085 Simulator

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Assembler

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✓ 0000		LXI H,1000	21	3	3	10
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✓ 000F		MOV M,C	71	1	2	7
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Registers

Register	Value	7	6	5	4	3	2	1	0
Accumulator	11	0	0	0	1	0	0	0	1
Register B	11	0	0	0	1	0	0	0	1
Register C	00	0	0	0	0	0	0	0	0
Register D	00	0	0	0	0	0	0	0	0
Register E	00	0	0	0	0	0	0	0	0
Register H	10	0	0	0	1	0	0	0	0
Register L	02	0	0	0	0	0	0	1	0
Memory(M)	00	0	0	0	0	0	0	0	0

Flag Register

Register	Value	S	Z	*	AC	*	P	*	CY
Flag Register	04	0	0	0	0	0	1	0	0

Stack Pointer(SP) 0000
Memory Pointer (HL) 1002
Program Status Word(PSW) 1104
Program Counter(PC) 0010
Clock Cycle Counter 76
Instruction Counter 11

For SIM instruction

SOD	SID	INTR	TRAP	R7.5	R6.5	R5.5
0	0	0	0	0	0	0

For RIM instruction

SOD	SDE	*	R7.5	MSE	M7.5	M6.5	M5.5
0	0	0	0	0	0	0	0

No. Converter Tool:

Hexadecimal	Decimal	Binary
0	0	0

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Learning outcomes (What I have learnt):

1. Here, we learn to add to 2 8 bit number in 8085 simulator
2. we learn to create our logic code to implement the addition of 2 8bit numbers in 8085 simulator.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			



3.			