LAB MST

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Branch: CSE **Section/Group:607A**
Semester: 4th **Date of Performance: 15/03/2022**
Subject Name:MPI Lab **Subject Code: 22E-20CSP-253**

1) **Aim/Overview of the practical:**

Write an assembly language program to add two 8 bit numbers stored at address 2050 and address 2051 in 8085 microprocessor. The starting address of the program is taken as 2000.

Apparatus/Simulator used: 8085 simulator

Algorithm:

1. LXI H,2050H loads 2050 in H-L pair
2. MOV A,M moves the first operator to A from memory.
3. INX H increments the H-L pair.
4. MOV B,H moves the second operator to B .
5. MVI C,00 intialized the register C with 00H.
6. ADD B adds B with A.
7. JNC 00D jumps to the address 00DH if there is no carry.
8. INR C increments register C
9. INX H increments the H-L pair.
10. MOV M,A moves results from register A to memory.
11. INX H increments the H-L pair.
12. MOV M,C moves carry from register C to memory
13. HLT end of the execution.

Steps for experiment/practical/Code:

```
// NAME: RAJIV PAUL

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# BEGIN 2000H

        LXI H,2050

        MOV A,M

        INX H

        MOV B,M

        MVI C,00

        ADD B

        JNC 000D

        INR C

        INX H

        MOV M,A

        INX H

        MOV M,C

        HLT

# ORG 2050H

# DB 07H,09H
```
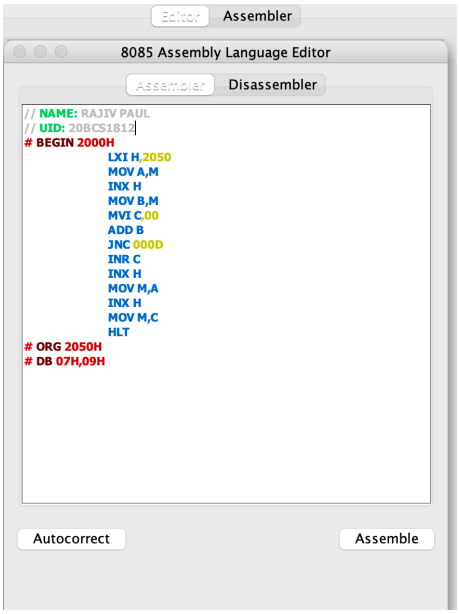
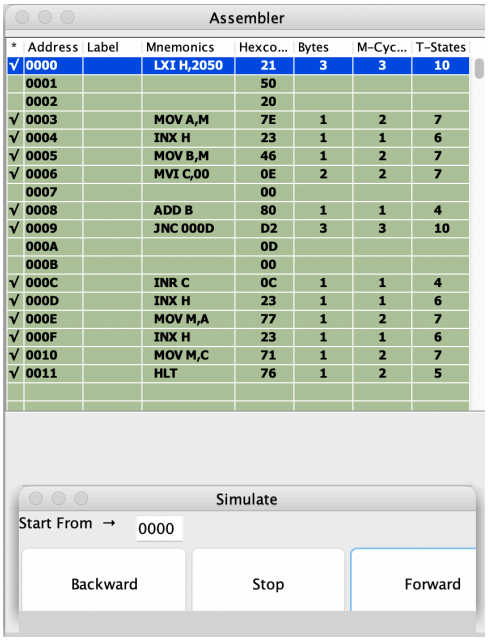

Simulation:

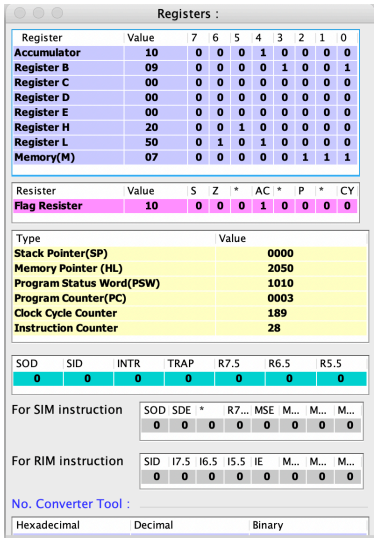
1. CODE IN EDITOR WINDOW:



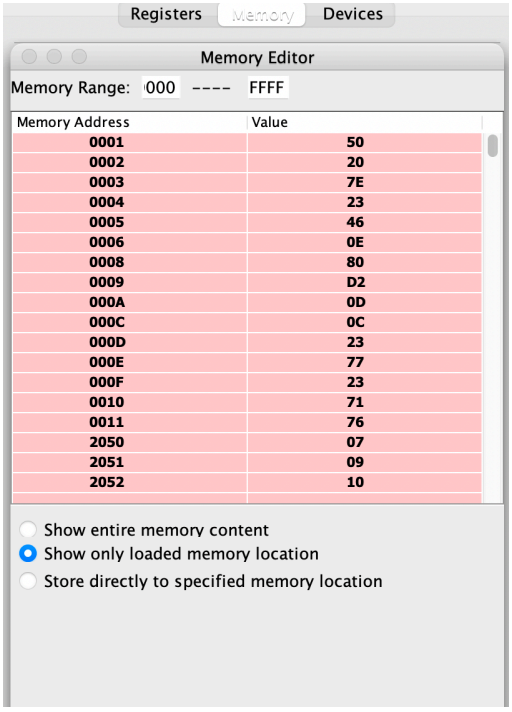
2. ASSEMBLER WINDOW:



3. REGISTERS:



4. MEMORY:



RESULT

BEFORE EXECUTION:

2050H: 07
2051H: 09

AFTER EXECUTION:

2052H: 10

Learning outcomes (What I have learnt):

1. **Learnt about 8085 simulator**
2. **Learnt how to perform 8 bits addition.**
3.
4.
5.

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.			