WORKSHEET – 1.4

Name:

Section/Group:

UID:

Subject: Microprocessor and Interfacing Lab

Date of Submission:

Branch: BE CSE (4th Semester)

Aim:

Complement of a number 8 bit data

Task to be done:

1. 1's Complement of a number 8 bit data using Jubin Application.
2. 2's Complement of a number 8 bit data using Jubin Application.

Apparatus / Simulator Used:

1. Jubin Application
2. 8085 Simulator
3. JDK

Algorithm / Flowchart:

1's Complement:

1. Load H – L pair with address 1000H.
2. Complement Accumulator.
3. Store the result at memory location 1050H.
4. Terminate the program.

2's Complement:

1. Load H – L pair with address 1000H.
2. Complement Accumulator.
3. Store the result at memory location 1050H.
4. Increase Accumulator by 1.
5. Store the memory location 1051H.
6. Terminate the program.

Code:

1's Complement:

```
LDA 1000H
CMA
STA 1050H
HLT
```


2's Complement:

LDA 1000H

CMA

STA 1050H

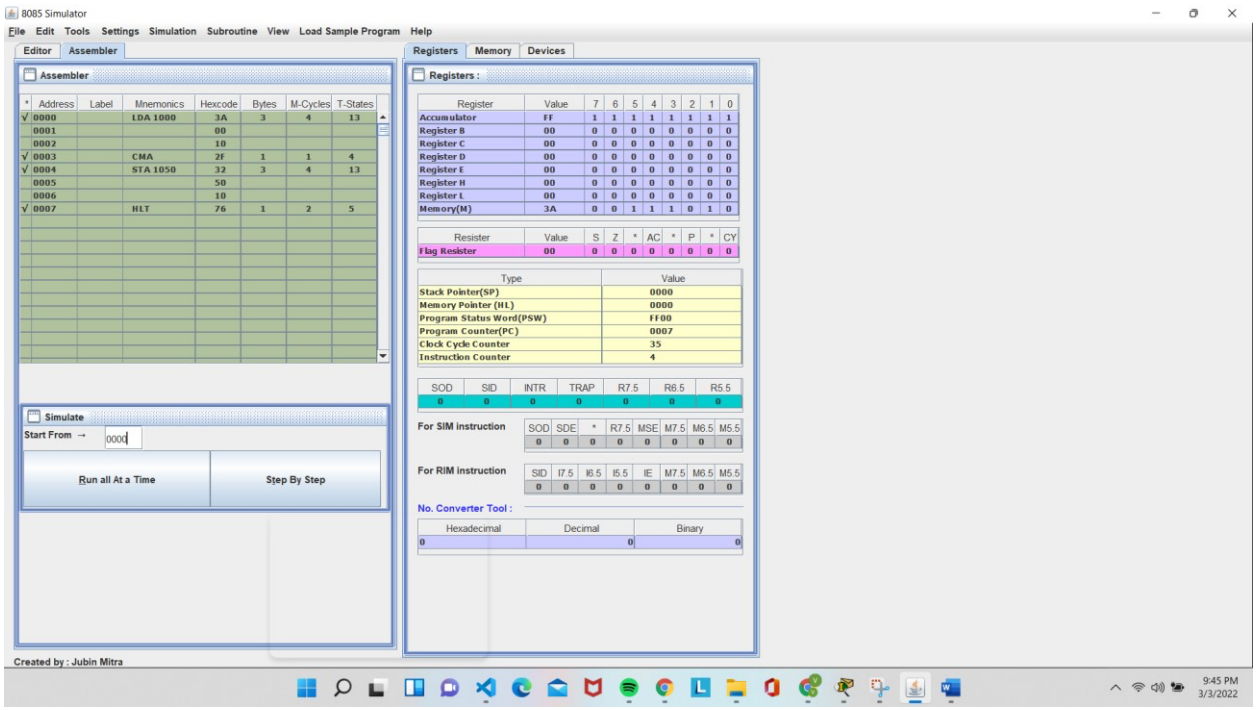
INR A

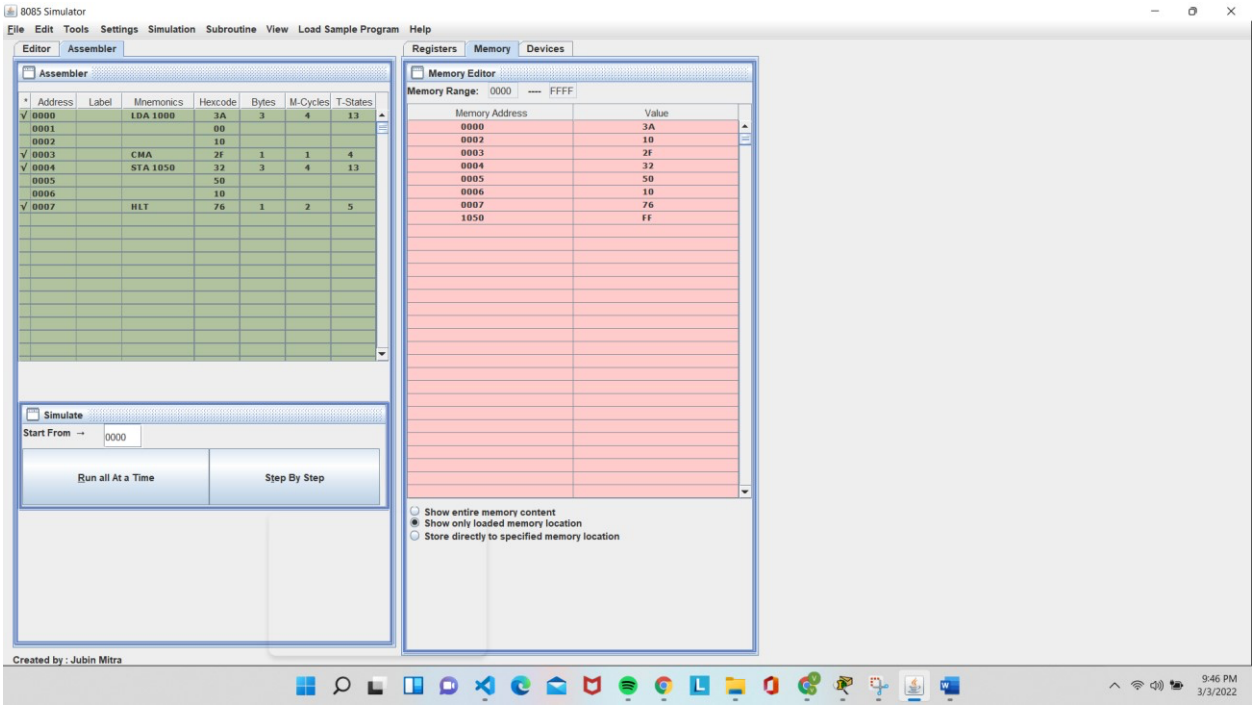
STA 1051H

HLT

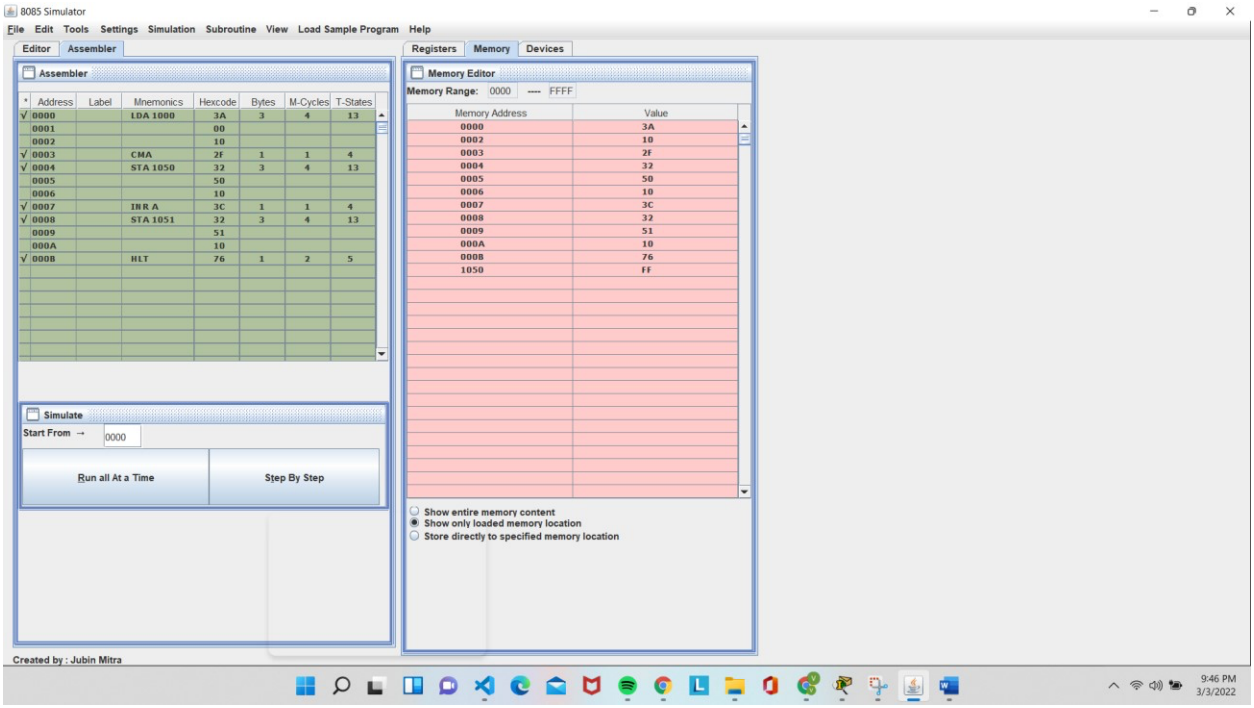
Result / Output / Writing Summary:

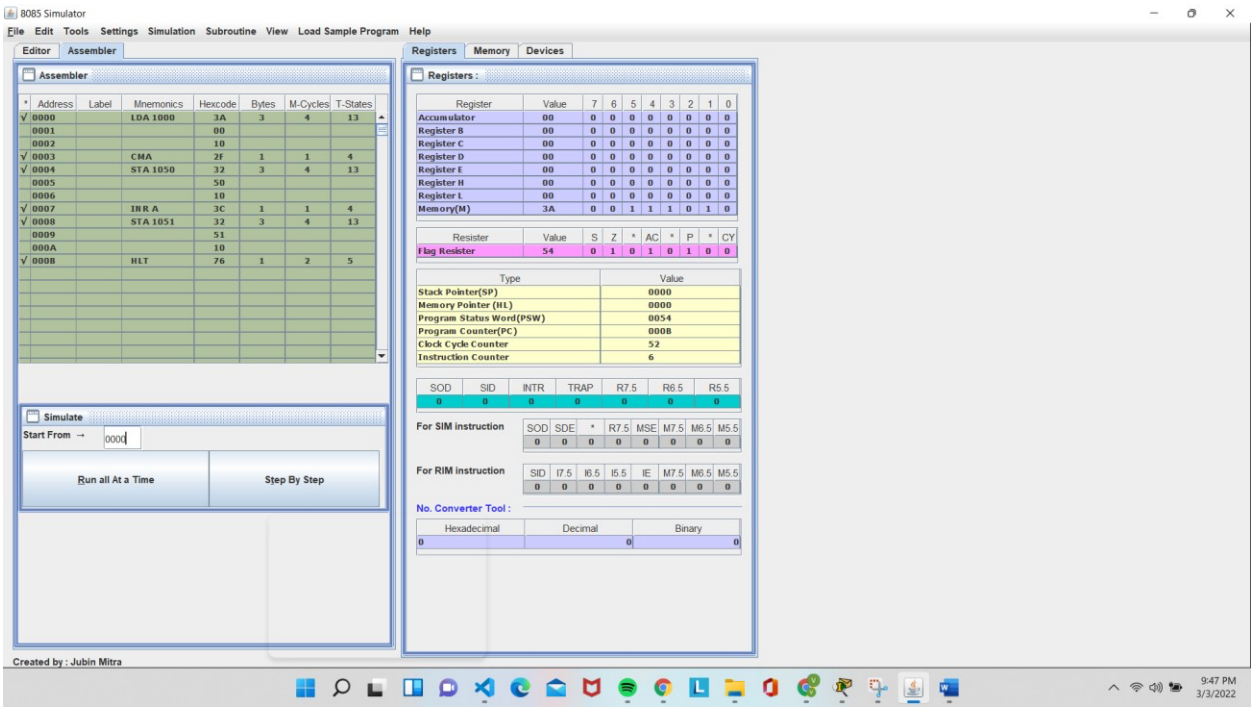
1's Complement:





2's Complement:


8085 Simulator
File Edit Tools Settings Simulation Subroutine View Load Sample Program Help
Editor Assembler
Registers Memory Devices
Assembler
Memory Editor
Memory Range: 0000 ---- FFFF
Simulate
Start From → 0000
Run all At a Time
Step By Step
Show entire memory content
Show only loaded memory location
Store directly to specified memory location
Created by : Jubin Mitra
9:46 PM
3/3/2022


8085 Simulator
File Edit Tools Settings Simulation Subroutine View Load Sample Program Help
Editor Assembler
Registers Memory Devices
Assembler
Registers :
Simulate
Start From → 0000
Run all At a Time
Step By Step
For SIM instruction
For RIM instruction
No. Converter Tool :
Created by : Jubin Mitra
9:47 PM
3/3/2022

Learning Outcomes:

1. Working of microprocessors.
2. Learn how to complement data in microprocessors.
3. Learn about 8085 simulator.
4. Operations of 8 bit numbers.
5. Learn about the different instructions that are needed to be given to the memory to perform some tasks.

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.			