

# Experiment - IV<sub>p</sub>

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## 1 Aim:

Write an assembly language program for addition of ten data bytes stored in memory locations from C100H to C109H; store the result at memory location C200H for MSB and C201H for the rest.

## 2 Code

```
# ORG C100H
# DB FF, 00, 01, 02, 03, 04, 05, 06, 07, 08
# ORG 0700H
    LXI H,C100H
    MVI B,0AH
    XRA A

LOOP:  ADD M
       JNC SKIP
       INR C

SKIP:  INX H
       DCR B
       JNZ LOOP
       STA C201H
       MOV A,C
       STA C200H
       HLT
```

## 3 Observations:

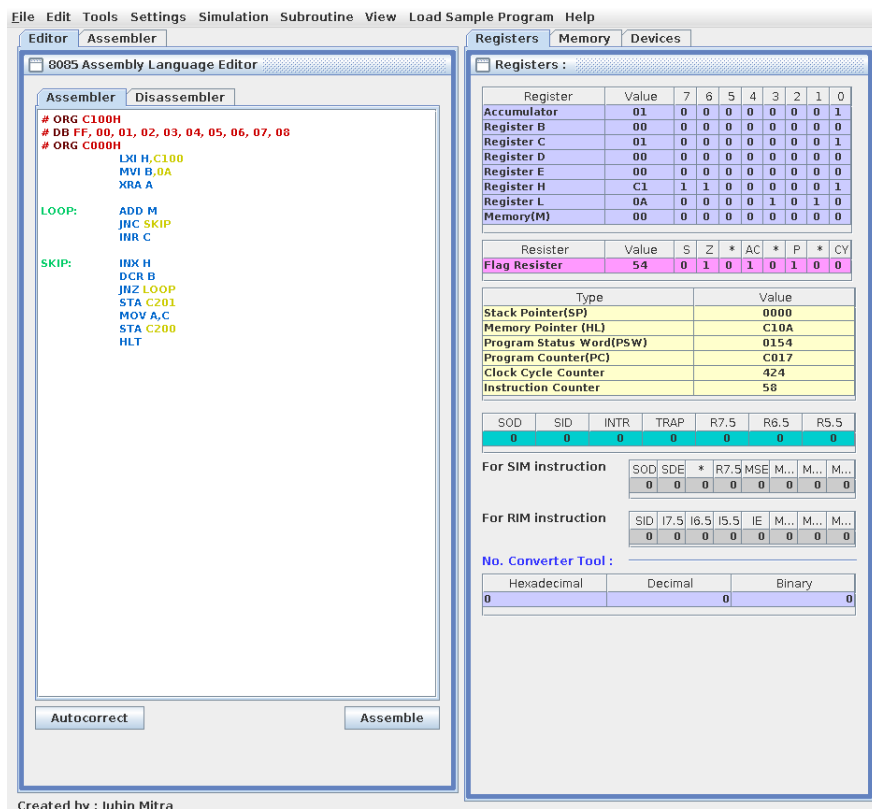


Figure 1: (a) addition of 10 data bytes

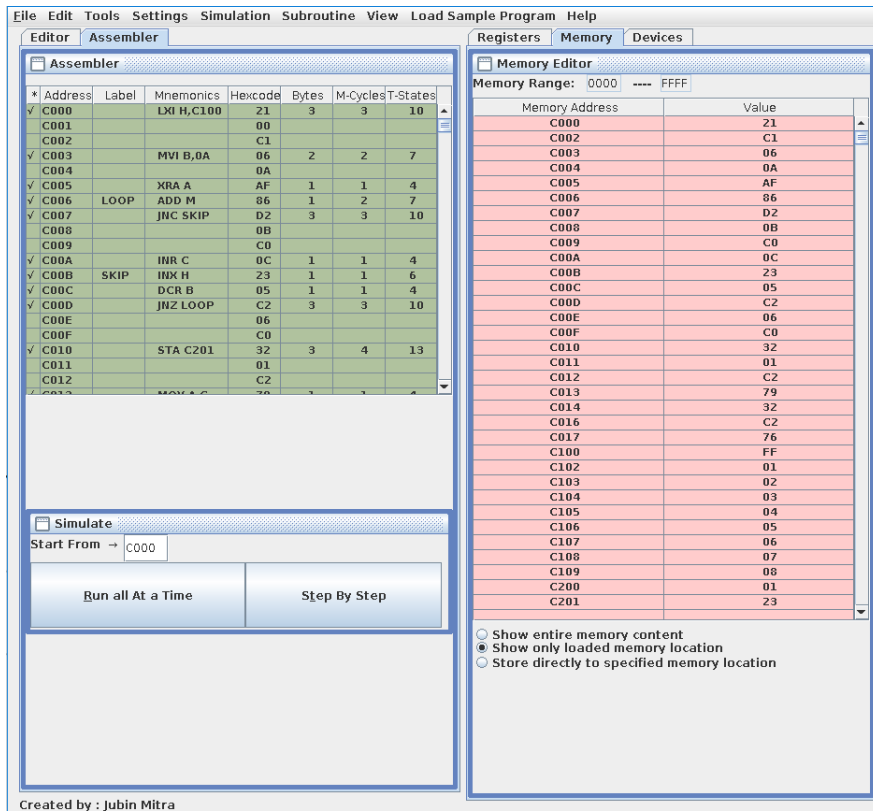


Figure 2: (b) addition of 10 data bytes

#### 4 Conclusion:

location	data
C100	FF
C101	00
C102	01
C103	02
C104	03
C105	04
C106	05
C107	06
C108	07
C109	08

Table 1: Input

location	data
C200	01
C201	23

Table 2: Output

Hence the program for addition of ten data bytes given in [section 2](#) works as expected for 8085 microprocessor.