**ASIAN SCHOOL OF MANAGEMENT AND TECHNOLOGY**

[**Affiliated to Tribhuvan University]**



**ASSIGNMENT: KIT LAB REPORT OF MICROPROCESSOR**

**Submitted By Submitted To:**

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**Program: B.Sc. CSIT**

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**1.Write a program to add 56H and 37H and store the sum in memory address 8050H.**

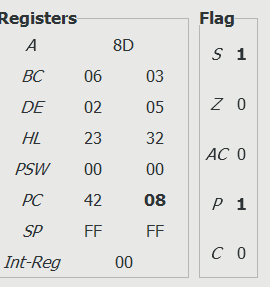
MVI A, 56H

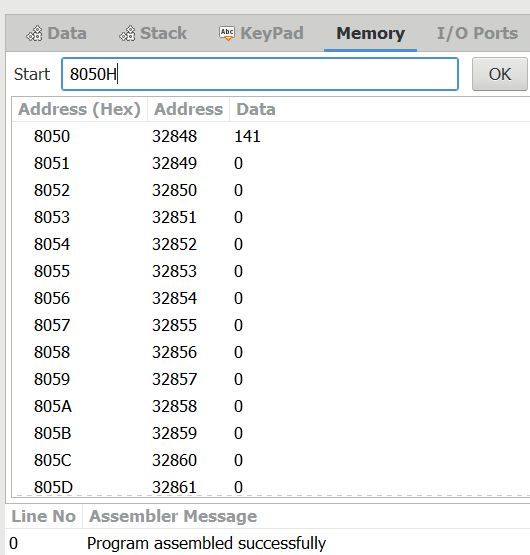
ADI 37H

STA 8050H

HLT

**OUTPUT:**





**2.Write a program to add two number store in 8050H and 8051H and store the sum in 8052H.**

LDA 8050H

MOV H, A

LDA 8051H

ADD H

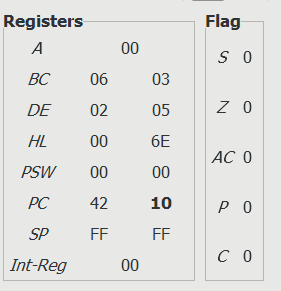
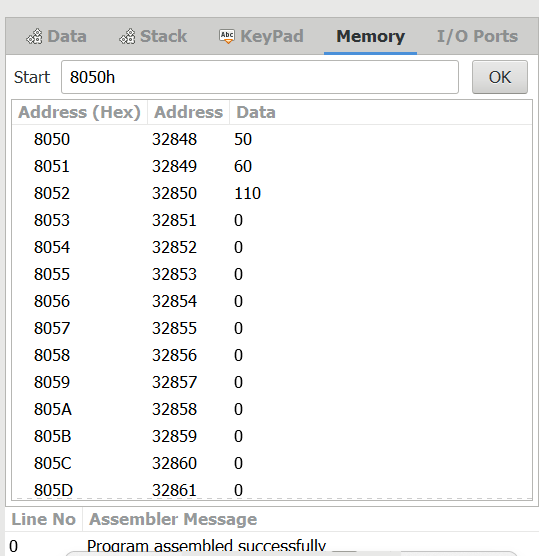
MOV L, A

MVI A, 00

MOV H, A

SHLD 8052H

HLT

**OUTPUT:** 

**3.Write a program to subtract 37H from 52H and store the difference in memory address 8050.**

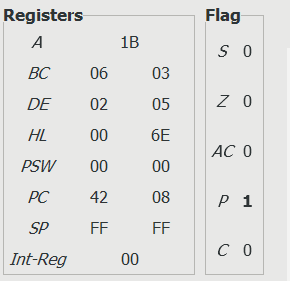
MVI A, 52H

SUI 37H

STA 8050

HLT

OUTPUT:



|  |
| --- |
|  |

**4.Write a program to find the difference of number stored in location 9050 and 9051 and stored the difference in 9052.**

LDA 9050

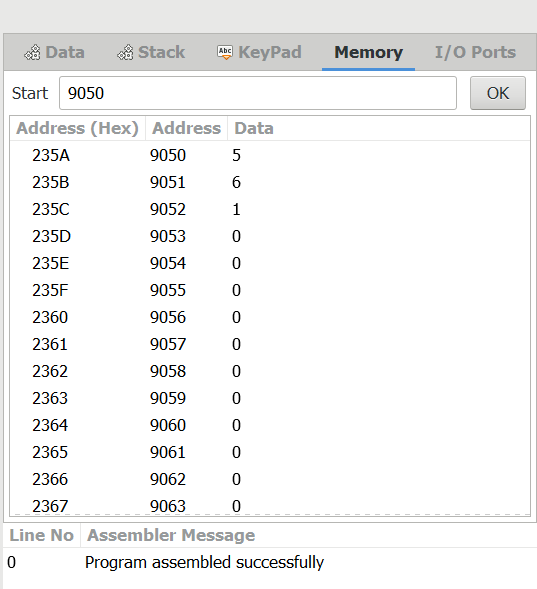
M0V B, A

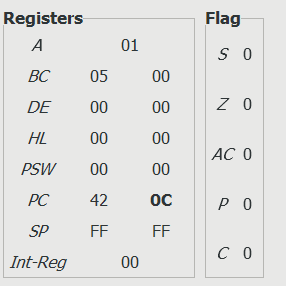
LDA 9051

SUB B

STA 9052

HLT

 OUTPUT:



**5.Write a program to find greater number between two number stored in location 8050H and 8051H and stored the bigger number in memory address 9050H.**

LDA 8050H

MOV B, A

LDA 8051

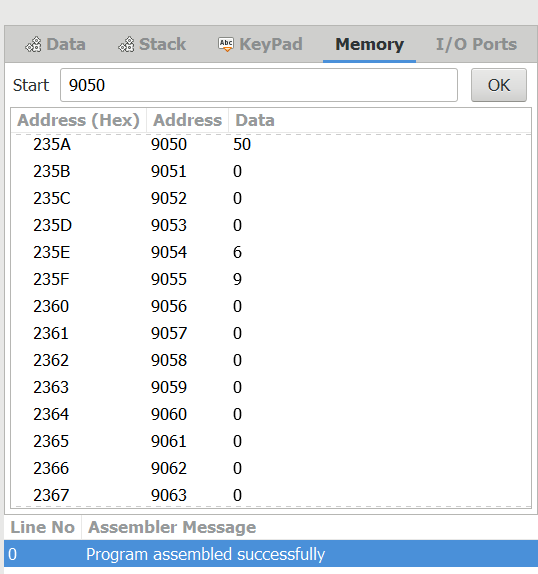
CMP B

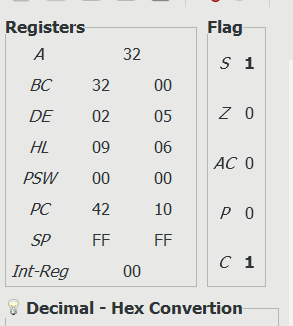
JNC GREATER

MOV A, B

GREATER: STA 9050

HLD

OUTPUT:



**6. Write a program to find a given number is positive or negative and if positive store in location 8050 if negative store in 8051.**

LDA 9050H

MOV B, A

RAL

JC NEGATIVE

MVI A,00H

RAR

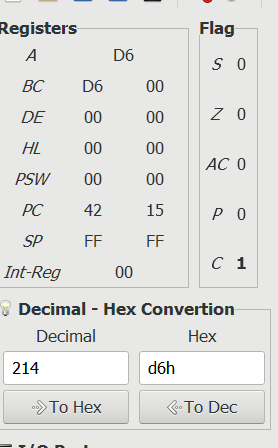
MOV A, B

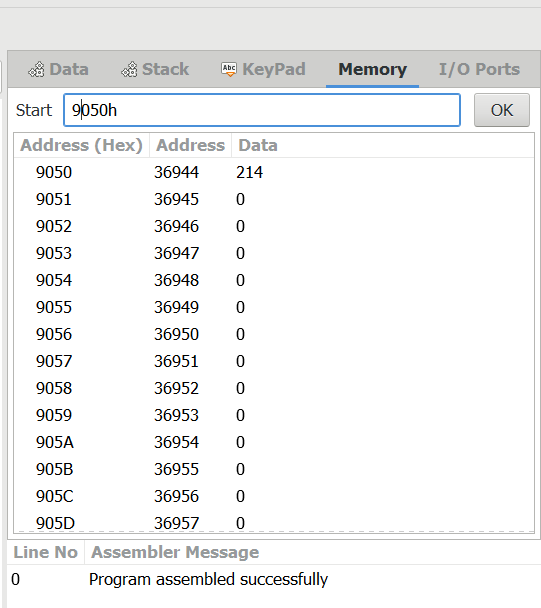
STA 8050H

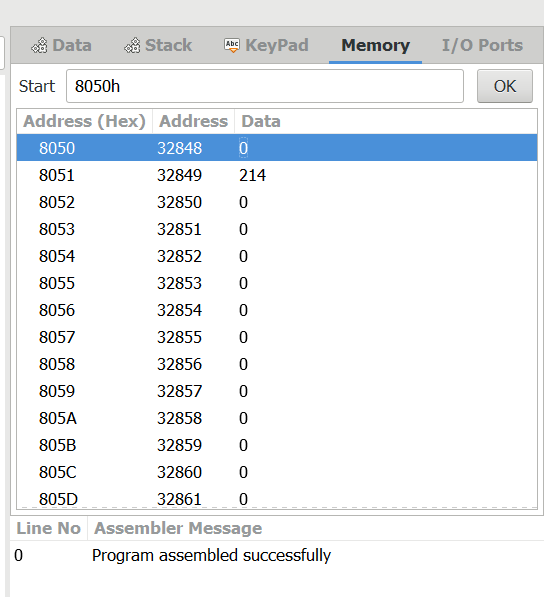
NEGATIVE: MOV A, B

STA 8051H

HLT

**OUTPUT:**

****

****

**7.Write a program to find a given number is even or odd and if even stored in location 9050H and if odd stored in 9051H.**

LDA 8050H

ANI 01H

JZ EVEN

MVI A, 01H

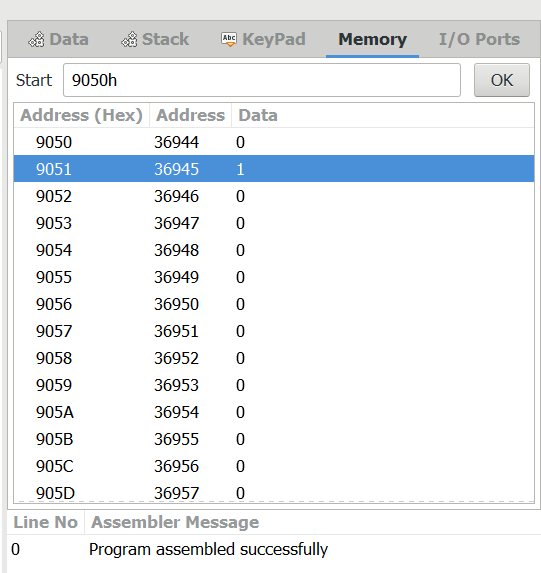
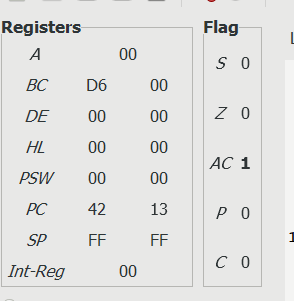
STA 9050H

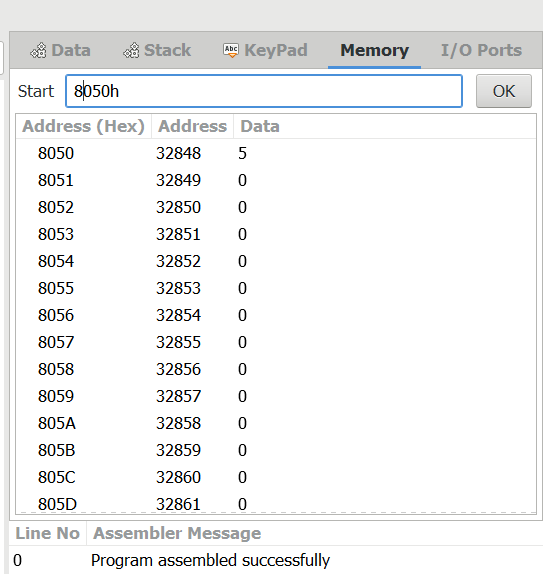
EVEN: MVI A, 00H

STA 9050H

HLT

**OUTPUT:**

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**8.Write a program to add two 16 bits numbers stored in location 9050,9051 and 9052,9053 and then stored the sum in 9054 and 9055.**

LHLD 9050

XCHG

LHLD 9052

DAD D

MVI C,00H

JNC LOOP

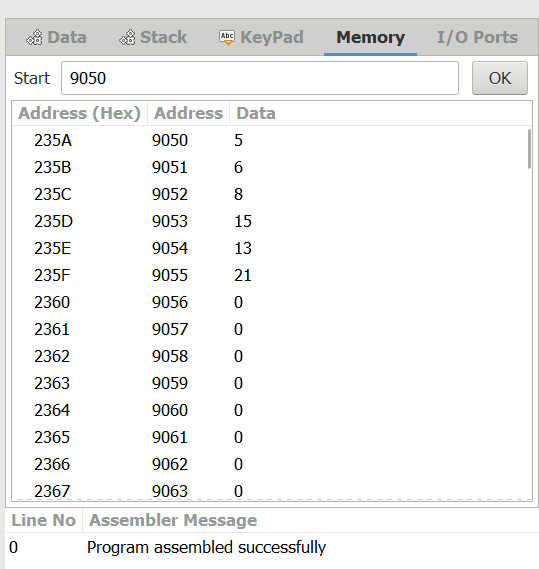
INR C

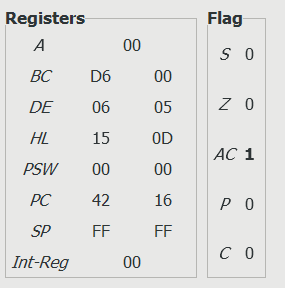
LOOP: SHLD 9054

MOV A, C

STA 9056

HLT

**OUTPUT:**

****

**9.Write a program to add two number stored in location 8000 and 8001 store the sum of addition in 8003 and carry in 8002.**

MVI C,00

LDA 8000H

MOV B, A

LDA 8001H

ADD B

STA 8003H

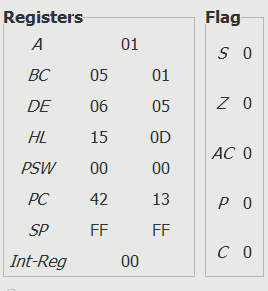
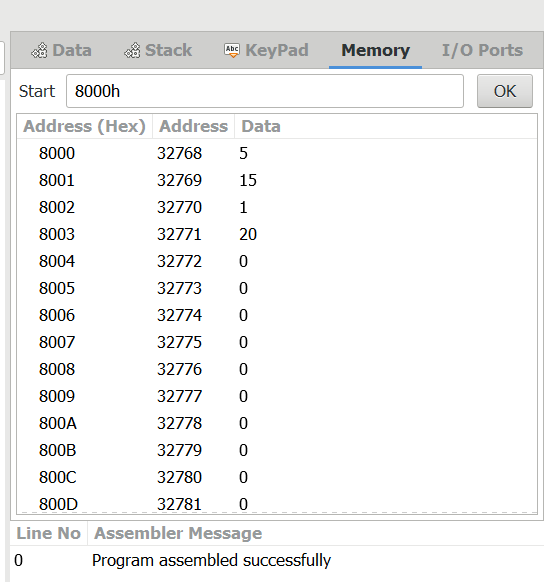
INR C

MOV A, C

STA 8002H

HLT

**OUTPUT:**

****

**10. WAP to multiply two number stored in location 8002 and 8003 and stored the product in 8084.**

LDA 8000

MOV D, A

LXI H, 8003

MOV C, M

BACK: DCR C

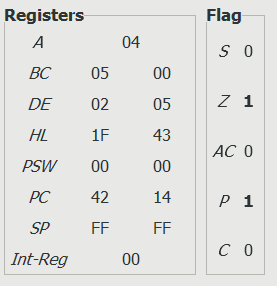
JZ SKIP

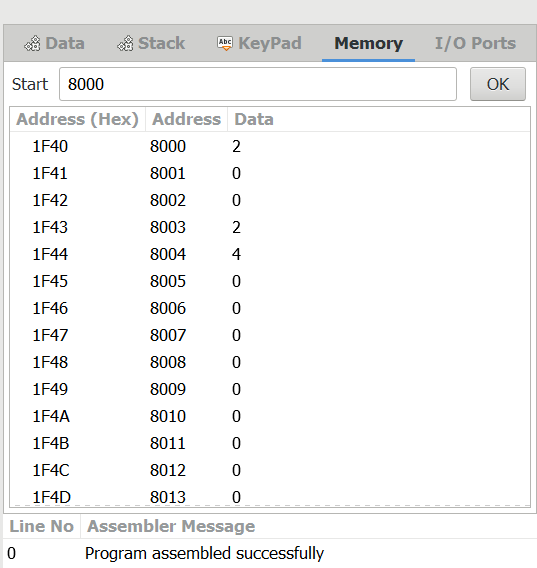
ADD D

JMP BACK

SKIP: STA 8004

HLT

**OUTPUT:**

****

**11.WAP to find quotient and remainder and store quotient at location 8050 and remainder at location 8051.**

LXI H,8000

MOV B, M

MVI C,00

INX H

MOV A, M

NEXT: CMP B

JC LOOP

SUB B

INR C

JMP NEXT

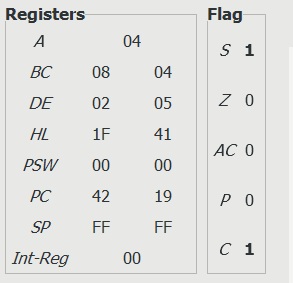
LOOP: STA 8081

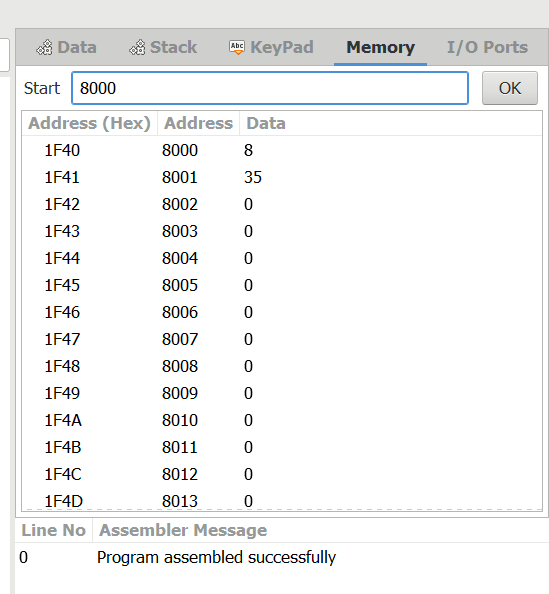
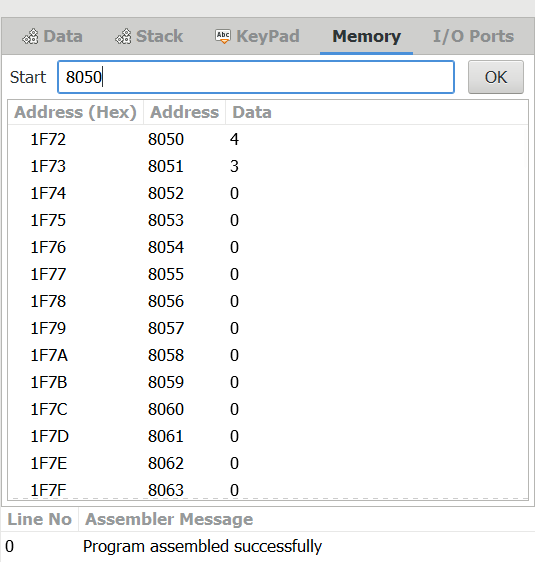
MOV A, C

STA 8050

HLT

**OUTPUT:**

****

****

**12. Find compliment of a number store in the location 9051and store its compliment in location 9052.**

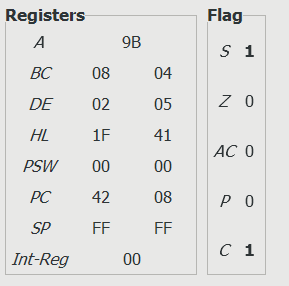
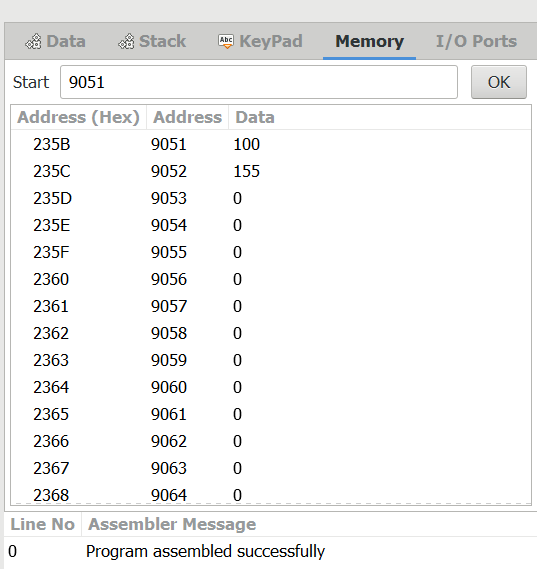
LDA 9051

CMA

STA 9052

HLT

**OUTPUT:**

****

**13. Find compliment 2’s of a number stored in location 8050 and store its compliment at location.**

LDA 8050

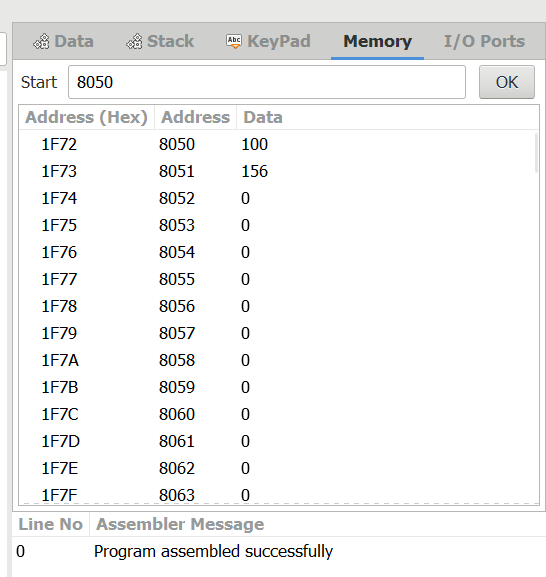
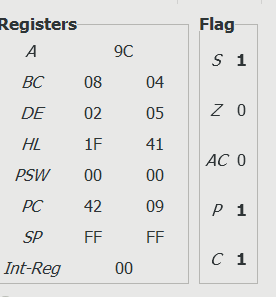
CMA

INR A

STA 8051

HLT

**OUTPUT:**

****

**14. Find the greatest number out of 10 number stored from location 9010 and number stored the greatest number at location 9060.**

LXI H,9010

MOV C, M

INX H

DCR C

MOV A, M

Skip: INX H

CMP M

JNC LOOP

MOV A, M

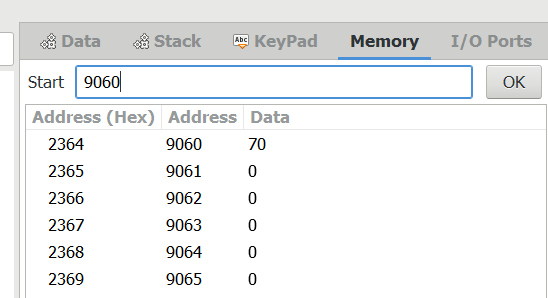
LOOP: DCR C

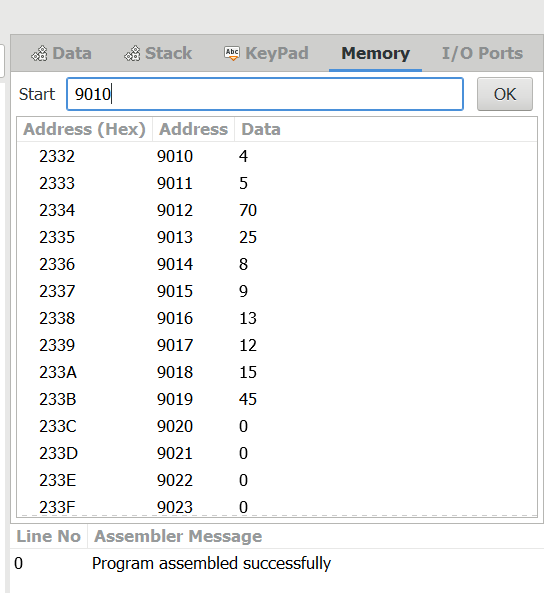
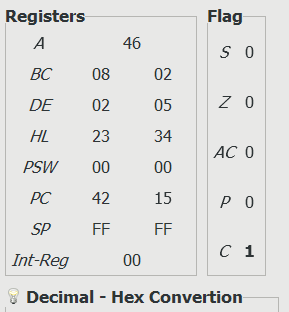
JNC Skip

STA 9060

HLT

**OUTPUT:**

****

****

**15.Find the smallest number out of 10 number stored from location 9010 and store the smallest at location 9060.**

LXI H, 9010

MOV C, M

INX H

MOV B, M

DCR C

LOOP: INX H

MOV A, M

CMP B

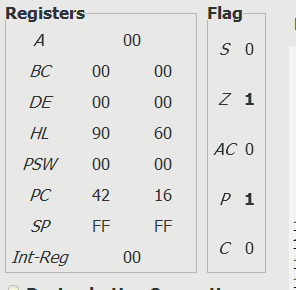
JNC Skip

MOV B, A

Skip: DCR C

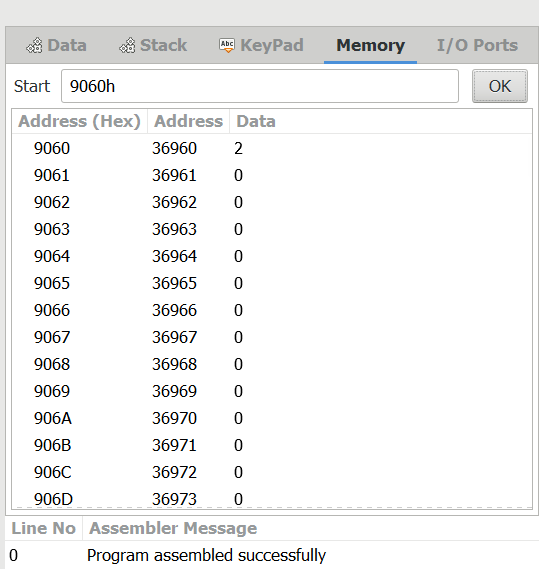
JNZ LOOP

LXI H,9060H

****MOV M, B

HLT

**OUTPUT:**

****

**16. WAP to copy 10 data from memory location 8050 to new memory location 9050.**

LXI H,8050H

LXI D,9050H

MVI B,10H

LOOP:MOV A, M

STAX D

INX H

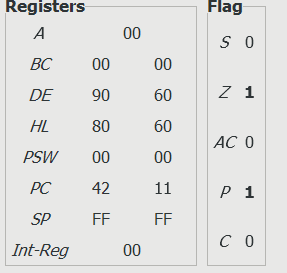
INX D

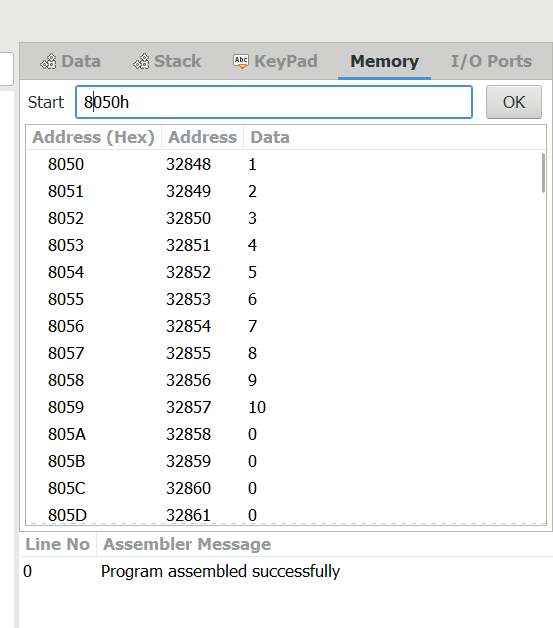
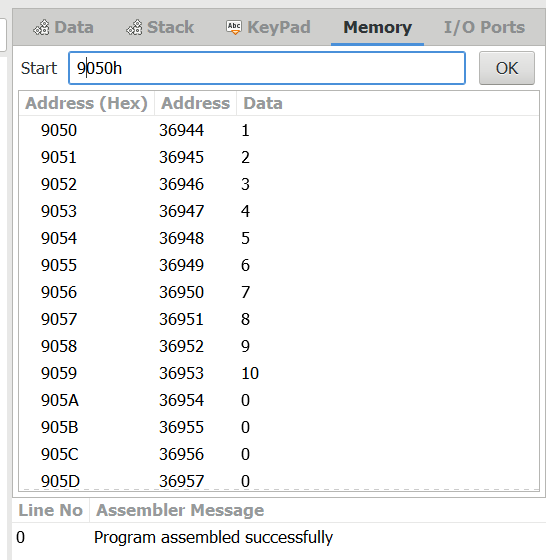
DCR B

JNZ LOOP

HLT

**OUTPUT:**

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****

**17. WAP to generate 10 even numbers.**

MVI A,00H

MVI B,02H

MVI C, 0AH

LXI H,9200H

LOOP: ADDB

MOV M, A

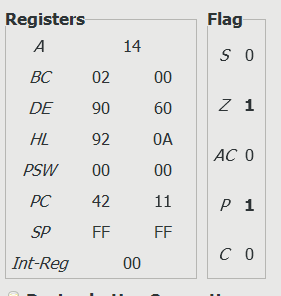
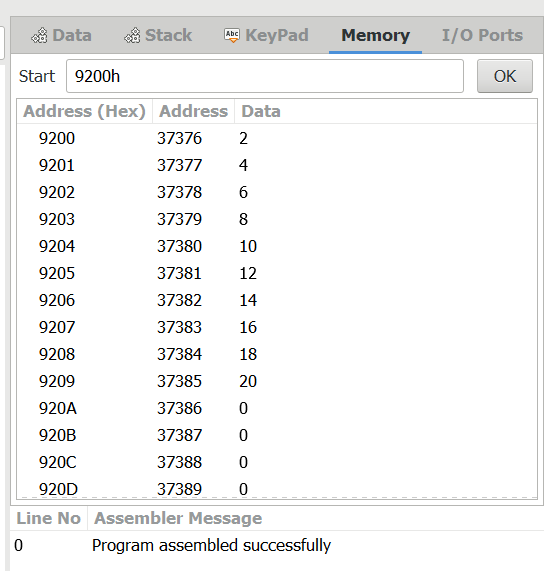
INX H

DCR C

JNZ LOOP

HLT

**OUTPUT**:



**18. WAP to generate 10 odd number.**

MVI A,01H

MVI B,02H

MVI C,0AH

LXI H, 9050H

LOOP: ADD B

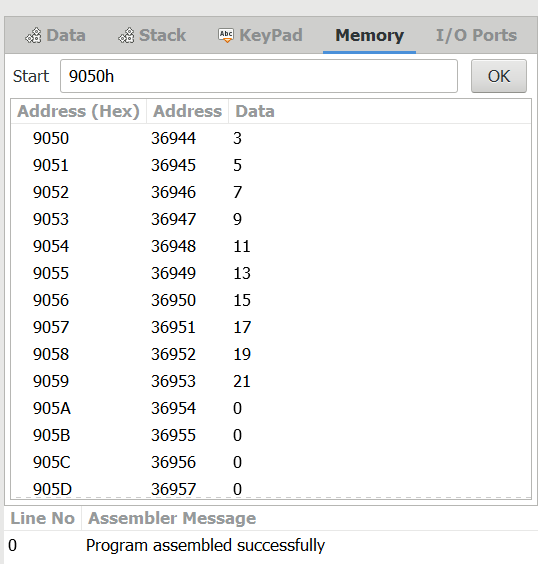
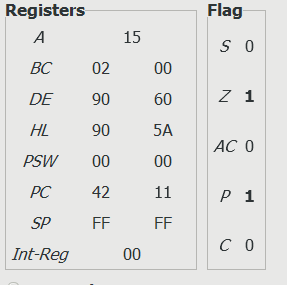
MOV M, A

INX H

DCR C

HLT

**OUTPUT:**

****

**19.WAP to count even number or odd number out of 10 number and store even number in location 8050H and odd number in location 8060H.**

LXI H,8000H

MOV C, M

MVI B,00H

MVI D,00H

LOOP2: INX H

MOV A, M

RAR

JC LOOP1

INR B

JMP LOOP3

LOOP1: INR D

LOOP3: DCR C

JNZ LOOP2

MOV A, B

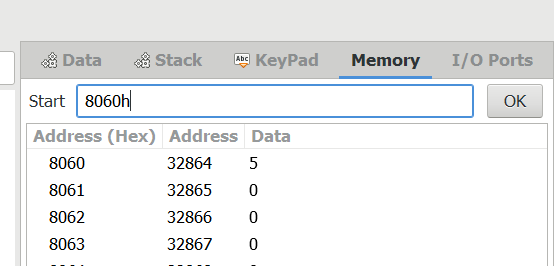
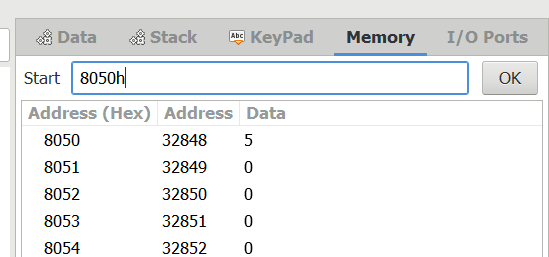
STA 8050h

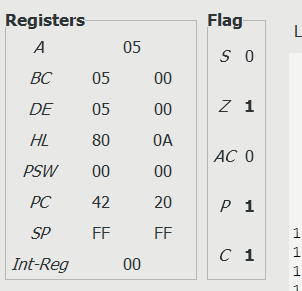
MOV A, D

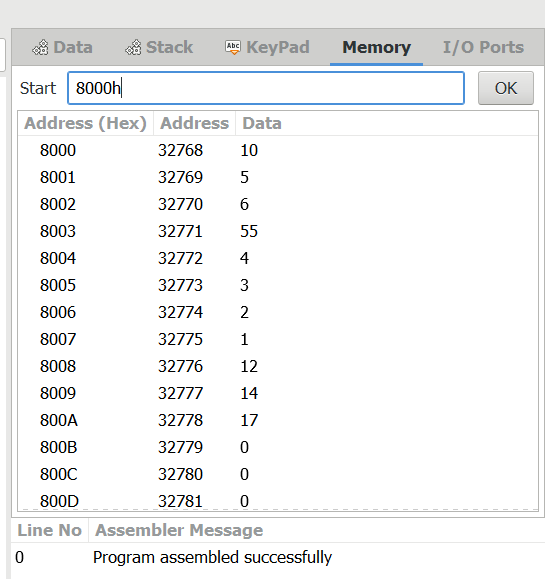
STA 8060h

HLT

**OUTPUT:**

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****

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**20.WAP to sort given 10 numbers from memory location 8200H in ascending order.**

MVI B, 09

START: LXI H, 8200H

MVI C,0AH

BACK: MOV A, M

INX H

CMP M

JNC SKIP

MOV D, M

MOV M, A

DCX H

MOV M, D

INX H

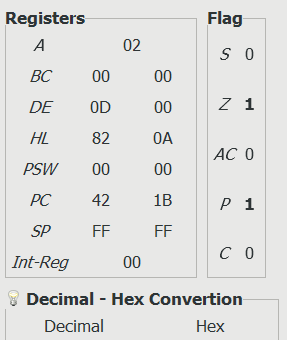
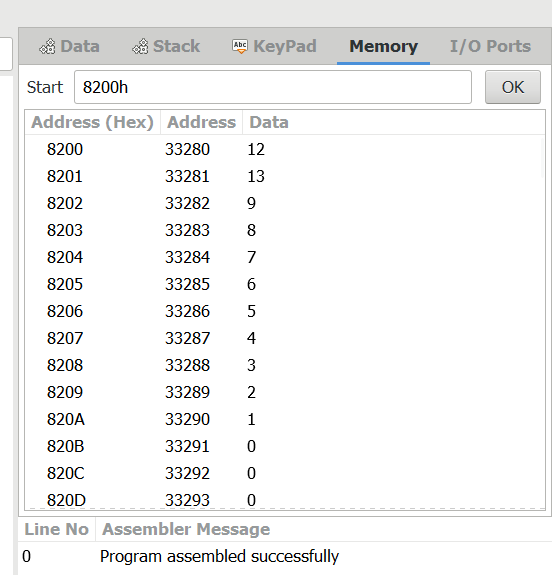
SKIP: DCR C

JNZ BACK

DCR B

JNZ START

HLT

**OUTPUT:**