# Write a program to find maximum of n numbers stored at consecutive memory locations starting from 2050H and store that at following address.

| Memory Address | Assembly code | Hex Code | Comments |
|---|---|---|---|
| 0000 | LXI H,2050H | 21<br>50<br>20 | Point to get count of numbers. |
| 0003 | MOV C,M | 4E | Moves count to c |
| 0004 | INX H | 23 | Increase value of H |
| 0005 | MOV B,M | 46 | Move value in memory to B |
| 0006 | DCR C | 0D | Decrease value of C by one |
| 0007 | LOOP: INX H | 23 | Increase value of H by 1 |
| 0008 | MOV A,M | 7E | Move value in memory to Acc |
| 0009 | CMP B | B8 | Compare value in B with that in A |
| 000A | JC SKIP | DA<br>0E<br>00 | Jump to label skip if B>A |
| 000D | MOV B,A | 47 | Move value in Acc to B |
| 000E | SKIP: DCR C | 0D | Decrease value of C |
| 000F | JNZ LOOP | C2<br>07<br>00 | Jumps to label LOOP if value in C is not 0 |
| 0012 | INX H | 23 | Increase value of H |
| 0013 | MOV M,B | 70 | Move value in B to memory |
| 0014 | HLT | 76 | Stop the program. |
| | | | |

**Procedure:**

Step – 1: Writing program in memory.

1. Press Reset
2. Press SET/MEM
3. Type in Address 0000
4. Press Enter
5. Type 1st Hex Code (Here 21)
6. Press Enter
7. Follow step 5 and 6 to type in all Hex Code

Step – 2: Assigning Value to the Address Location

1. Press Reset
2. Press SET/MEM
3. Type in Address of 1st Location (Here 2050)
4. Press Enter
5. Enter value of N (total count of number)
6. Press Enter
7. Enter a Number

8. Press Enter
9. Repeat Step 7 and 8 N-1 times

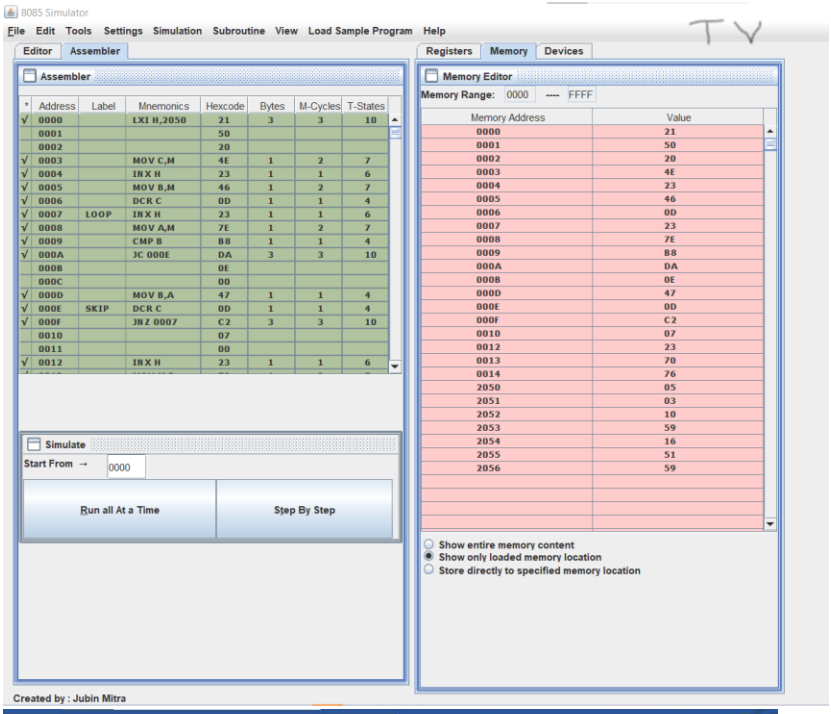
Step – 3: Executing the program

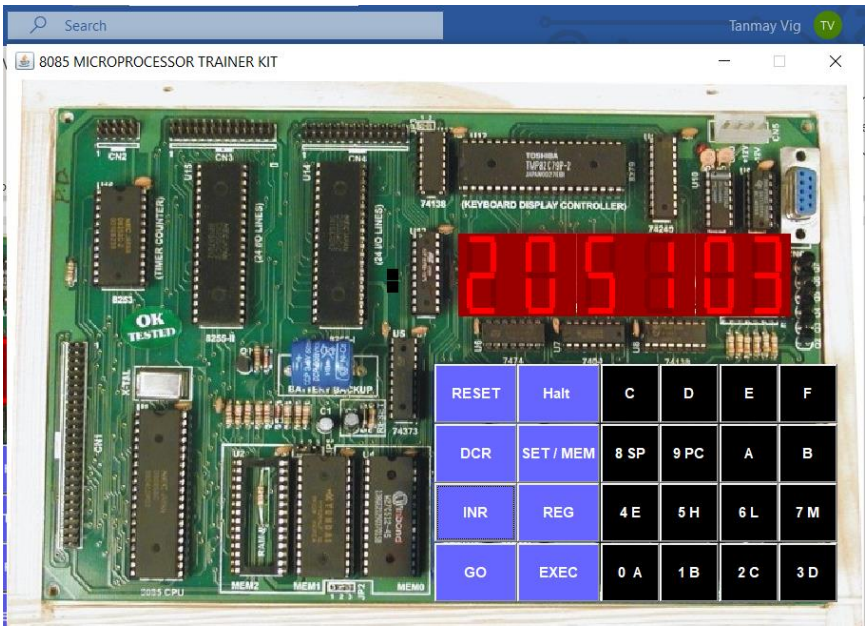
1. Press Reset to clear Buffer
2. Press Go
3. Enter Starting Address of Program (Here 0000)
4. Press Execute

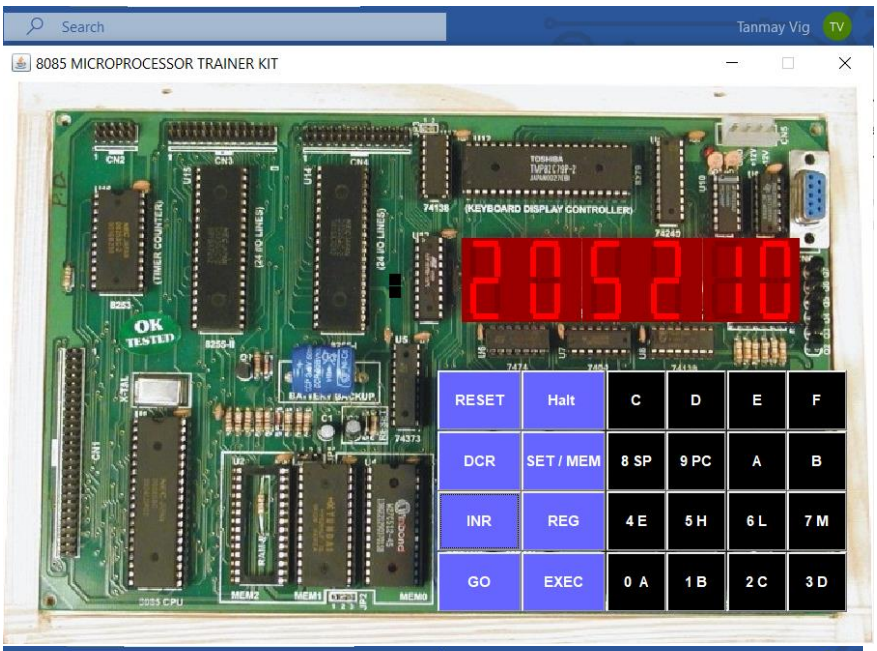
Step – 4: Checking output

1. Press reset and Clear the Buffer
2. Press Go
3. Enter Result Location (Here 2050+ value of N+1)
4. You will find the maximum of N digits

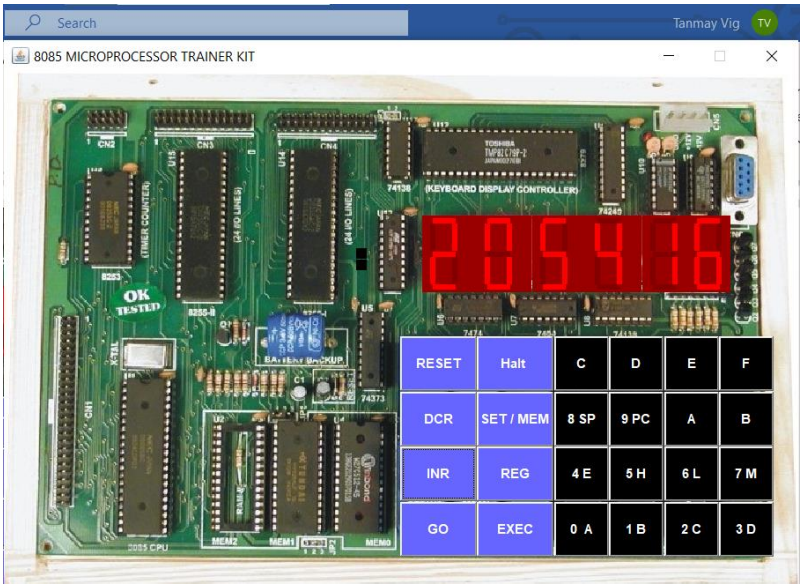
**Output:**

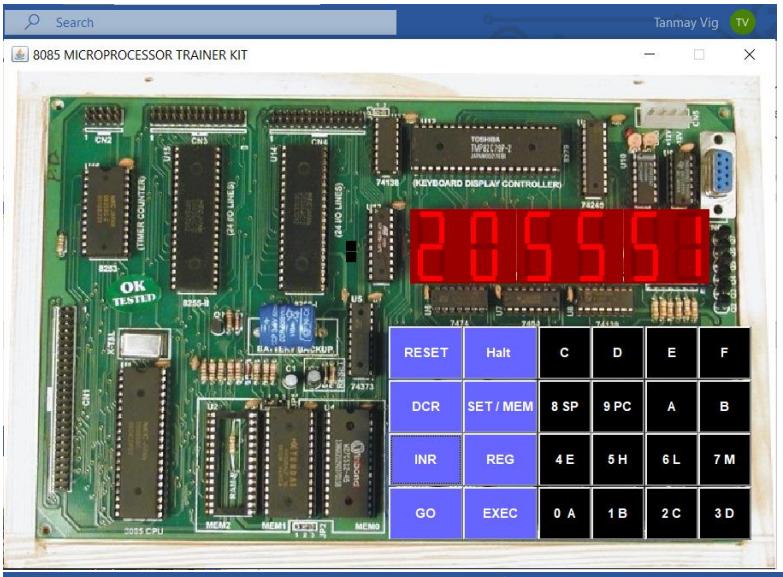




Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 1 0 3
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D


Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 2 1 0
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D


Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 3 5 9
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D


Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 4 1 6
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D


Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 5 5 8
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D


Search
Tanmay Vig
TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
2 0 5 6 5 9
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D