

## Experiment - 7.

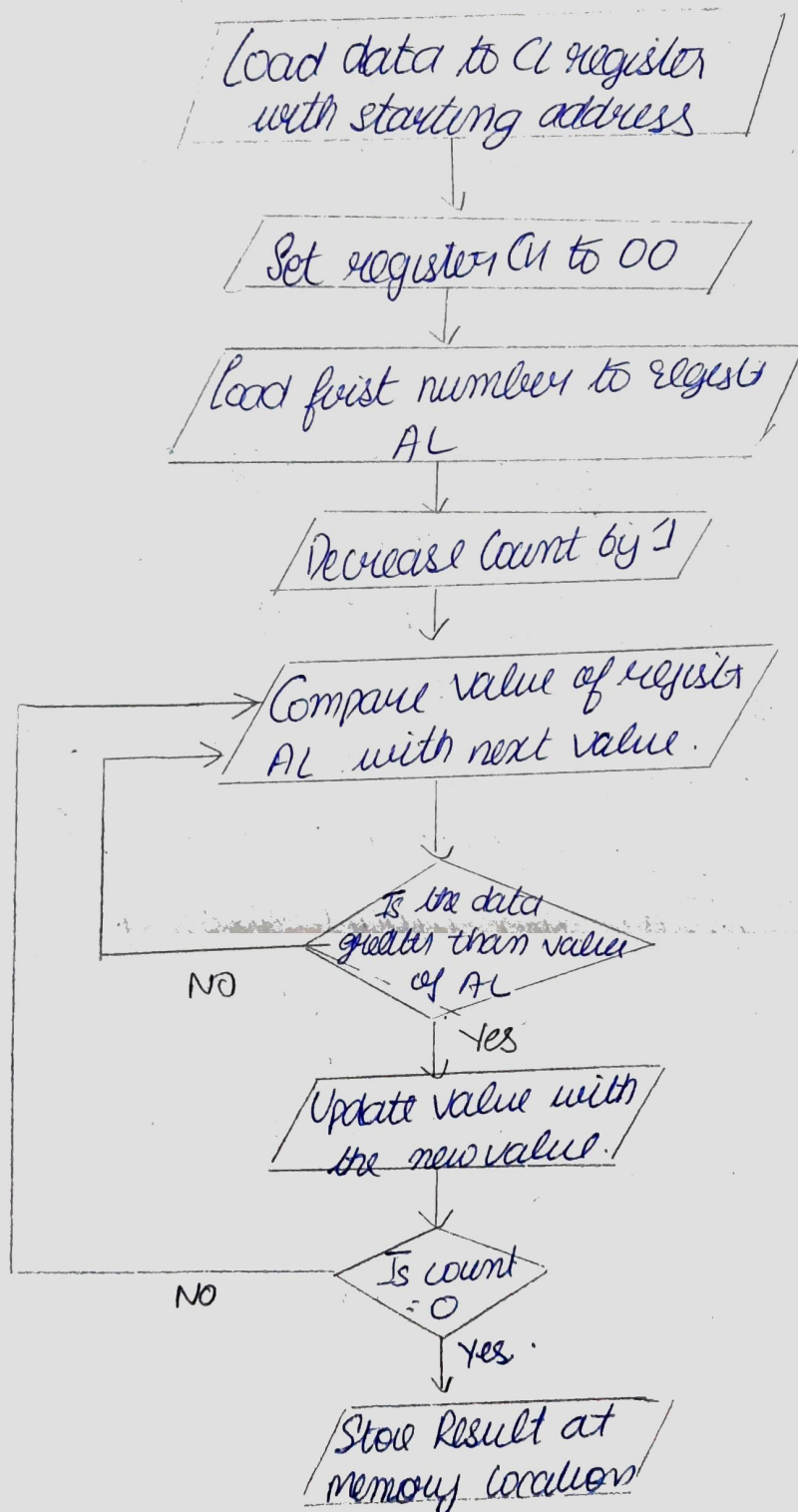
Aim:- To find out maximum number in a given string at memory location from 0000:1300 to 0000:130F and store result at memory location 0000:1310.

Software Used:- 8086 sim.

Algorithm:-

- 1) Load data from offset 1300 to register CX & set register CX to 00 (for count)
- 2) Load first number from next offset (i.e. 1301) to register AL & decrease count by 1.
- 3) Now compare the value of register AL from data at next offset, if that data is greater than value of register AL, then update value of register AL to that data else no change, & increase offset value for next comparison and decrease count by 1. Continue till count becomes zero.
- 4) Store result at memory address 0000:1310.

## Flowchart:-



## PROGRAM:

<u>Address</u>	<u>Mnemonic</u>
1200	MOV SI, 1300
1203	MOV CL, [SI]
1205	MOV CH, 00
1207	INC SI
1208	MOV AL, [SI]
120A	DEC BL
120C	INC SI
120D	CMP AL, [SI]
120F	JNC 1213
1211	MOV AL, [SI]
1213	INC SI
1214	LOOP 120D
1216	MOV (1310), AL
121A	HLT

Output:

0000: 1300	-23
0000: 1303	1
0000: 130F	2
0000: 1310	1 (minimum number)

Result: Minimum number was formed from the given string.