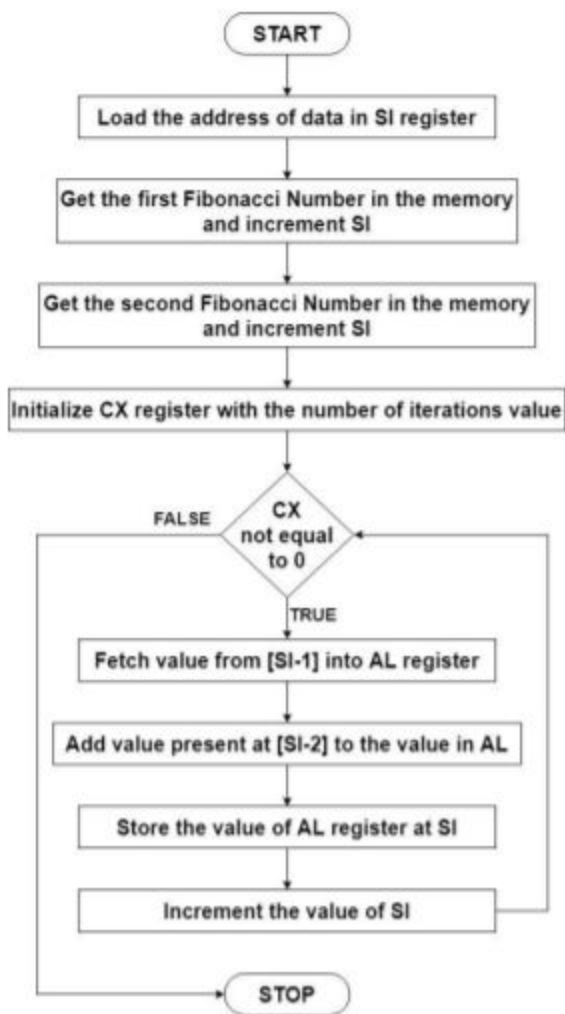


Experiment-4

Aim:- 8086 Assembly Language Programme for generation of Fibonacci Series less than FF.

Algorithm:



Program:

```
; You may customize this and other start-up templates;  
; The location of this template is c:\emu8086\inc\0_com_template.txt  
  
org 100h  
  
; add your code here  
mov si, 1000h  
mov [si], 00h  
add si, 01h  
mov [si], 01h  
add si, 01h  
mov cx, 6  
fibo:  
mov al, [si-1]  
add al, [si-2]  
mov [si], al  
add si, 01h  
loop fibo  
hlt
```

Observation:

The screenshot displays an 8086 emulator interface with three main windows:

- Random Access Memory:** Shows a memory dump starting at address 0700:0100. The data is displayed in hexadecimal and ASCII. The first few lines show the program's code being executed.
- emulator: noname.com_:** The main emulator window. It includes a menu bar (file, math, debug, view, external, virtual devices, virtual drive, help), a toolbar with buttons for Load, reload, step back, single step, run, and a step delay slider. Below the toolbar is a registers window showing the state of various registers (AX, BX, CX, DX, CS, IP, SS, SP, BP, SI, DI, DS, ES). The SI register is highlighted, showing its value as 0000. To the right of the registers is a memory window showing the current memory location (0700:0100) and its contents in hexadecimal and ASCII. The code being executed is visible in the memory window.
- original source c...:** A window showing the original source code of the program, which matches the code provided in the "Program" section.

Random Access Memory

F400:0100 update table list

F400:0100	FF FF CD FF CF 00 00 00-00 00 00 00 00 00 00 00	..=..±.....
F400:0110	00 00 00 00 00 00 00 00-00 00 00 00 00 00 00
F400:0120	00 00 00 00 00 00 00 00-00 00 00 00 00 00 00
F400:0130	00 00 00 00 00 00 00 00-00 00 00 00 00 00 00
F400:0140	00 00 00 00 00 00 00 00-00 00 00 00 00 00 00
F400:0150	FF FF CD 20 CF 00 00 00-00 00 00 00 00 00 00	..=..±.....
F400:0160	FF FF CD 1A CF 00 00 00-00 00 00 00 00 00 00	..=>±.....
F400:0170	00 00 00 00 00 00 00 00-00 00 00 00 00 00 00

emulator: noname.com_

file math debug view external virtual devices virtual drive help

Load reload step back single step run step delay ms: 0

registers

	H	L
AX	10	55
BX	1A	6D
CX	00	00
DX	00	00
CS	F400	
IP	0154	
SS	0700	
SP	FFFA	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

F400:0154 F400:0154

Address	Hex	Dec	Symbol
F4150:	FF	255	RES
F4151:	FF	255	RES
F4152:	CD	205	=
F4153:	20	032	SPA
F4154:	CF	207	±
F4155:	00	000	NULL
F4156:	00	000	NULL
F4157:	00	000	NULL
F4158:	00	000	NULL
F4159:	00	000	NULL
F415A:	00	000	NULL
F415B:	00	000	NULL
F415C:	00	000	NULL
F415D:	00	000	NULL
F415E:	00	000	NULL
F415F:	00	000	NULL
F4160:	FF	255	RES
F4161:	FF	255	RES
F4162:	CD	205	=
F4163:	1A	026	→
F4164:	CF	207	±
F4165:	00	000	NULL

BIOS DI
INT 020h
IRET
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD BH, BH
DEC BP
SBB CL, BH
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD BH, BH
DEC BP
ADD [BX + SI], AL
ADD [BX + SI], AL
...

original source co...

```

01 org 100h
02 mov ax,1
03 mov bx,1
04 mov cx,9
05 fibo:add ax,bx
06 add bx,ax
07 loop fibo
08 ret
09
10

```

screen source reset aux vars debug stack flags

(Arkajyoti Chakraborty 2k19/EP/022)