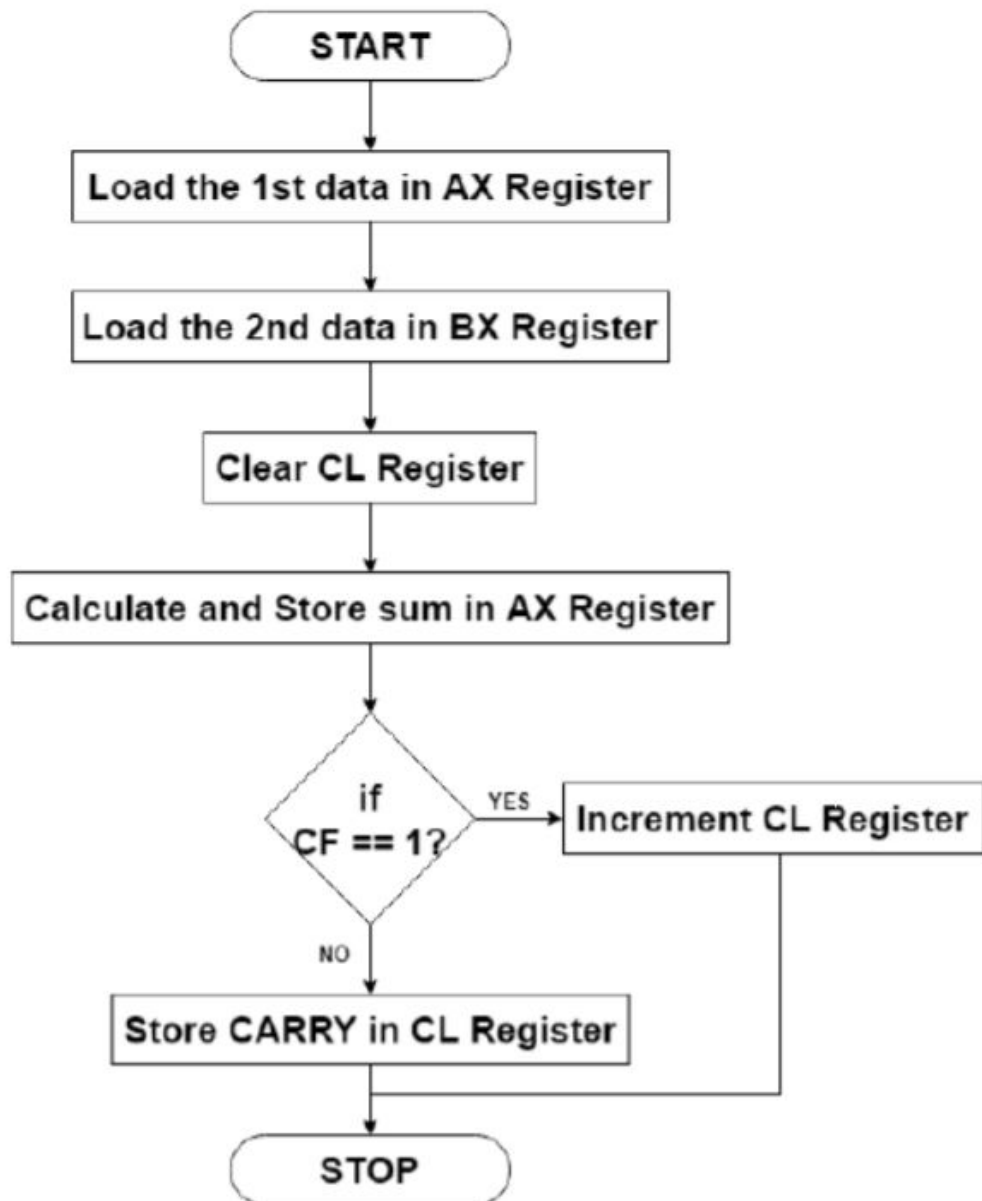


## Experiment-1

**Aim:** Addition of two 64 - bit numbers.

**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 ax, [1000h]
mov bx, [1002h]
mov cl, 00h
add ax, bx
mov [1004h], ax
jnc cTrue
inc cl
cTrue:
mov [1006h], cl
hlt

```

## Observation:

The image shows a screenshot of an 8086 emulator interface with three main windows:

- Random Access Memory:** Displays memory addresses from 0700:0116 to 0700:0176. Address 0700:0116 is highlighted, showing a value of F4. Address 0700:0116 is also highlighted in the main code window.
- emulator: MPL\_EXP\_1.com:** The main emulator window showing registers and memory. The registers window shows AX=00, BX=00, CX=00, DX=00, CS=0700, IP=0116, SS=0700, SP=FFFE, BP=0000, SI=0000, DI=0000, DS=0700, ES=0700. The memory window shows the instruction at 0700:0116: `hlt`. The instruction list shows the sequence of instructions from `MOV AX, [01000h]` to `hlt`.
- original source c...:** A window showing the assembly code from the first window, with the `hlt` instruction highlighted in yellow.



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