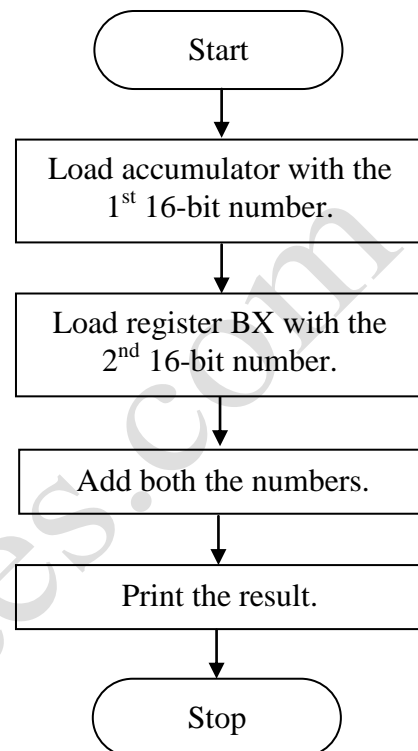


Program 10: Add two 16-bit numbers.**Program:**

| Instructions | Comments |
|-----------------------|---|
| include "emu8086.inc" | |
| ORG 100h | |
| MOV AX, 0005H | Move 1 st 16-bit number to AX. |
| MOV BX, 0003H | Move 2 nd 16-bit number to BX. |
| ADD AX, BX | Add BX with AX. |
| CALL PRINT_NUM | Print the result. |
| RET | Return. |
| DEFINE_PRINT_NUM | Declare function. |
| END | |

Flowchart:**Explanation:**

- This program adds two 16-bit numbers.
- The program has been developed using *emu8086* emulator available at: www.emu8086.com.
- ORG 100h is a compiler directive. It tells compiler how to handle the source code.
- It tells compiler that the executable file will be loaded at the offset of 100h (256 bytes).
- The 1st 16-bit number 0005H is moved to accumulator AX.
- The 2nd 16-bit number 0003H is moved to register BX.
- Then, both the numbers are added and the result is stored in AX.
- The result is printed on the screen.

Output:**Before Execution:**

AX = 0005H

BX = 0003H

After Execution:

AX = 0008H