EXPERIMENT 1

Aim :

- Write a Program to Add 8-bit Numbers.
- Write a Program to Subtract 8-bit Numbers.

Requirements :

8085 Simulator IDE Software.

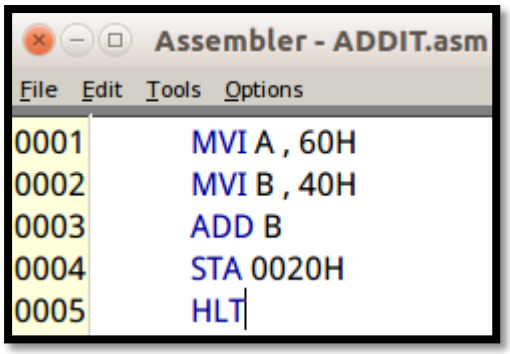
Procedure :

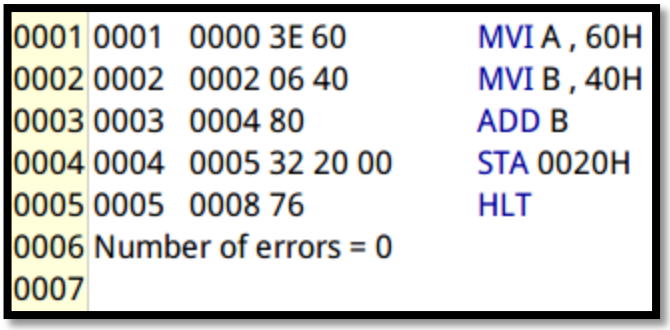
1. Go to the tools and select assembler.
2. Write the code in assembler window.
3. Go to the tools and select assemble & load in assembler window or press F8.
4. Check for errors and fix them.
5. Go to 8085 Simulator IDE and open simulation and start or press F1.
6. Open memory editor from tools option to observe output.

Program to Add 8-bit Numbers :

Address	Mnemonics	Operands	Comments
0000H	MVI A	60H	Move 60H in Accumulator
0002H	MVI B	40H	Move 40H in register B
0004H	ADD B		Add B to A & store the result in the Accumulator
0005H	STA	0020H	Store the content of Accumulator to 0020H memory location
0008H	HLT		End of program

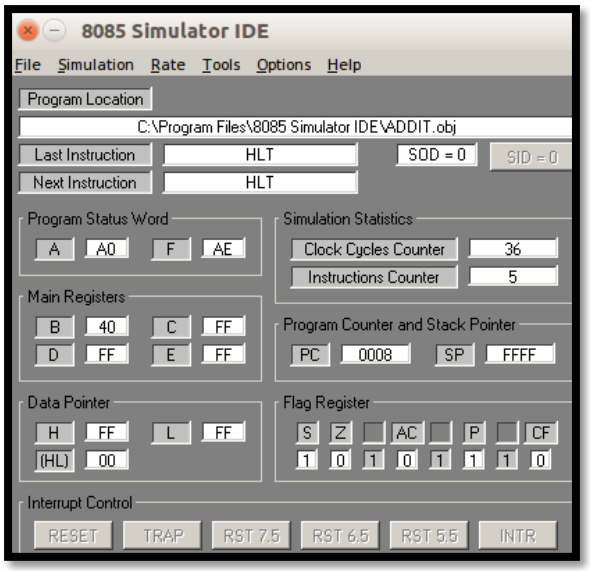
Screenshots :

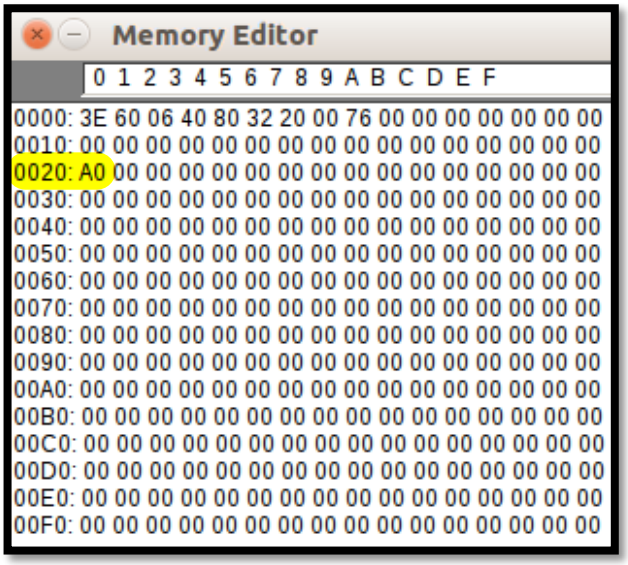




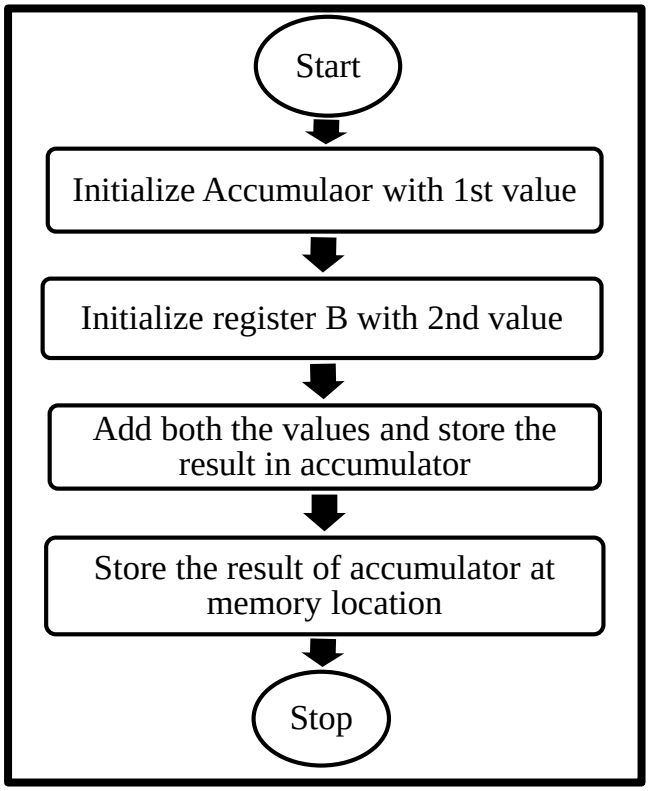
Output :

Before Execution	After Execution
A = 60H **B = 40H**	**A = A0H (at 0020H)**





Flow Chart :



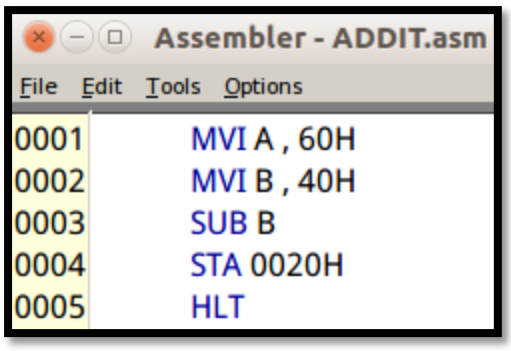
Result :

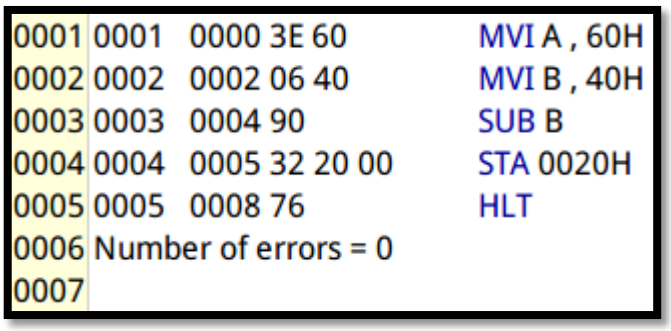
Program to Add 8-bit Numbers was implemented successfully.

Program to Subtract 8-bit Numbers :

Address	Mnemonics	Operands	Comments
0000H	MVI A	60H	Move 60H in Accumulator
0002H	MVI B	40H	Move 40H in register B
0004H	SUB B		Subtract B from A & store the result in the Accumulator
0005H	STA	0020H	Store the content of Accumulator to 0020H memory location
0008H	HLT		End of program

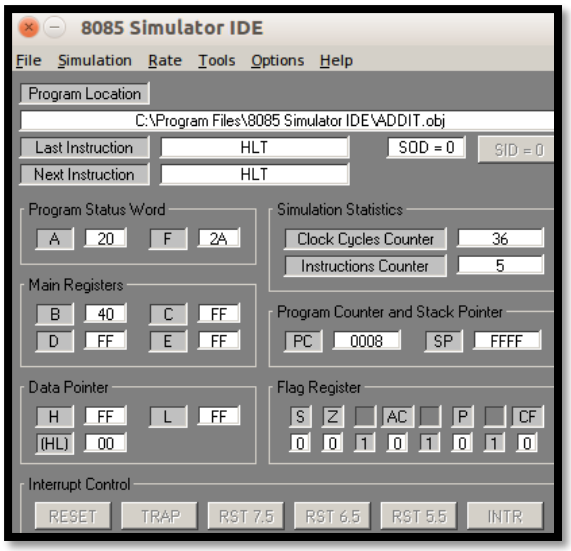
Screenshots :

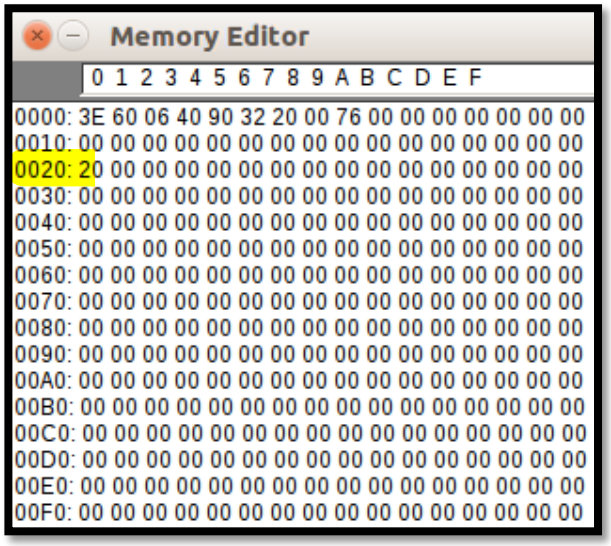




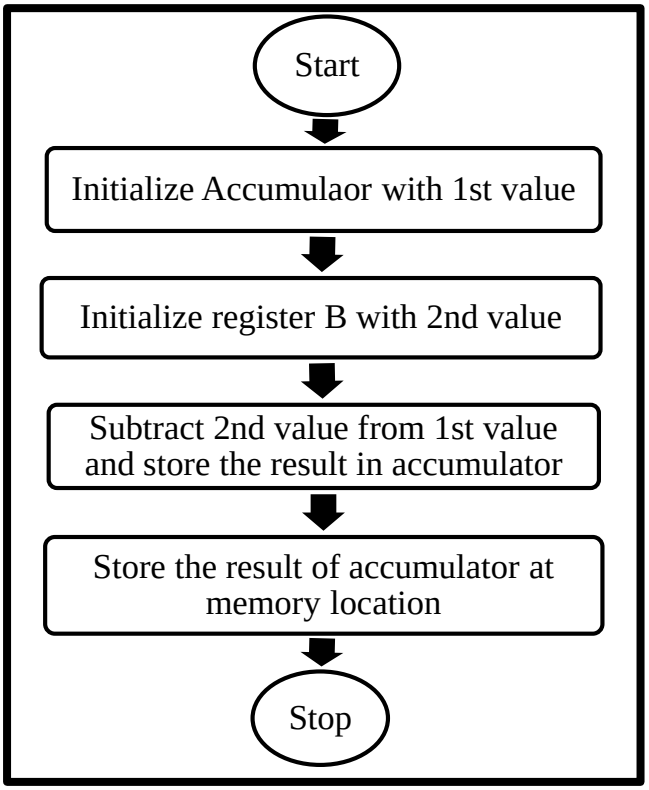
Output :

Before Execution	After Execution
A = 60H **B = 40H**	**A = 20H (at 0020H)**





Flow Chart :



Result :

Program to Subtract 8-bit Numbers was implemented successfully.