

Computer Organization and Architecture (EET2211)

LAB IV: Evaluate Different Arithmetic Operations and Logical operations on two 32-bit data using ARM processor.

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Branch:		Section:	
S. No.	Name	Registration No.	Signature

Marks: _____/10

Remarks:

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I. OBJECTIVE:

1. Perform Addition and Subtraction of two 32-bit numbers using data processing addressing mode (with immediate data).
2. Perform Addition, Subtraction, and Multiplication of two 32-bit numbers using load/store addressing mode.
3. Perform the logical operations (AND, OR, XOR, and NOT) on two 32-bit numbers using load/store addressing mode.

II. PRE-LAB

Note: For each objective in prelab describe the following points:

- Write the pseudocode.
- Write the assembly code with a description (ex. Mov ax,3000h – ax<-3000h)
- Examine & analyze the input/output of assembly code.

III. LAB

Note: For each objective do the following job and assessment:

- Screenshots of the Assembly language program (ALP)
- Observations (with screenshots)

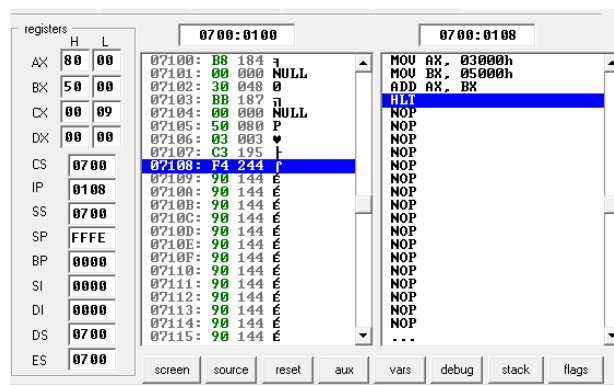


Fig. 1. Execution results of addition using immediate addressing mode of 8086 emulator.

From this result, I have observed.....

Input:

Sl. No.	Memory Location	Operand (Data)
1		
2		
...		

Output:

Sl. No.	Memory Location	Operand (Data)
1		
2		
...		

IV. CONCLUSION

V. POST LAB

1. Give any examples of five arithmetic and logical instructions.
2. Differentiate between LDR and STR instruction
3. Which of the following instructions is not valid
 - a) MOV R7,R2
 - b) LDR R1, =LABEL