**LAB 3**

**AIM:**

To perform arithmetic operations in assembly language on 8086emulator.

**SOFTWARE REQUIRED:**

Emu8086

**INTRODUCTION:**

Assembly language is a low-level programming language for a computer or other programmable device specific to a particular computer architecture in contrast to most high-level programming languages, which are generally portable across multiple systems.

A processor understands only machine language instructions, which are strings of 1's and 0's. However, machine language is too obscure and complex for using in software development. So, the low-level assembly language is designed for a specific family of processors that represents various instructions in symbolic code and a more understandable form.

**Addition**

**Assembly Code:**

; first number into register

mov AL, 10h

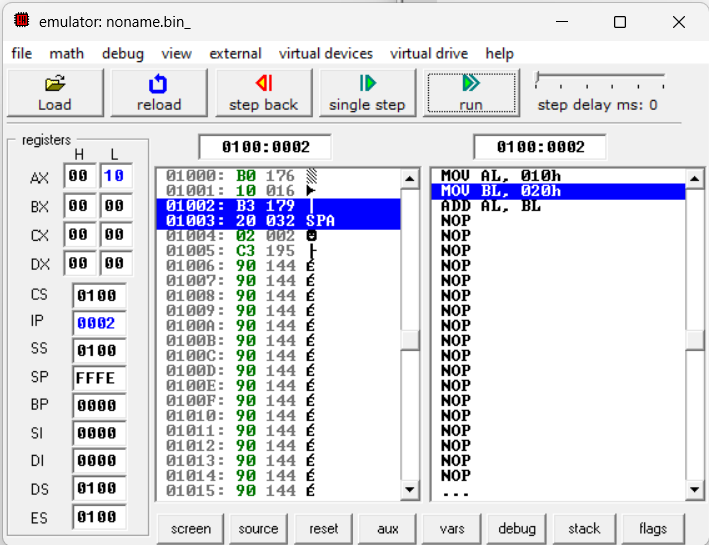
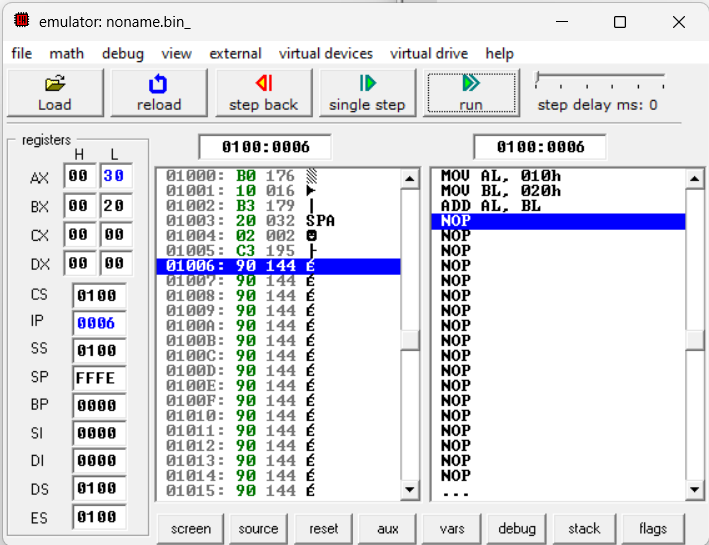
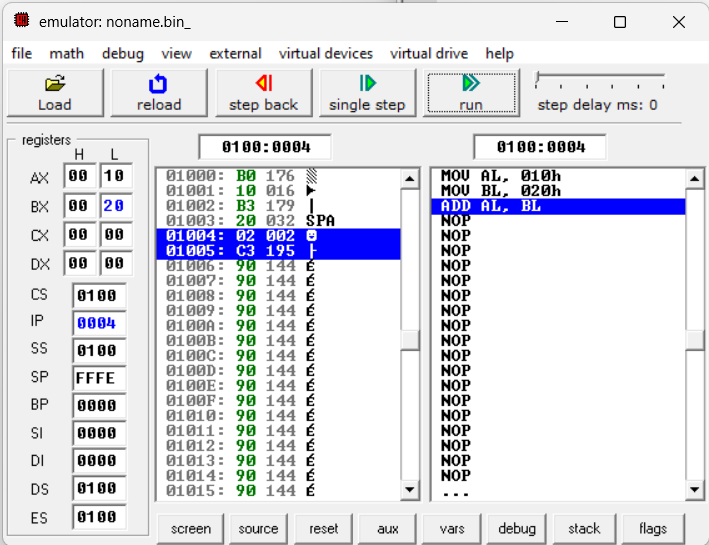
; second number into register

mov BL, 20h

; sum of both number

add AL, BL

**Output:**

** **

**Subtraction**

**Assembly Code:**

; first number into register

mov AL, 30h

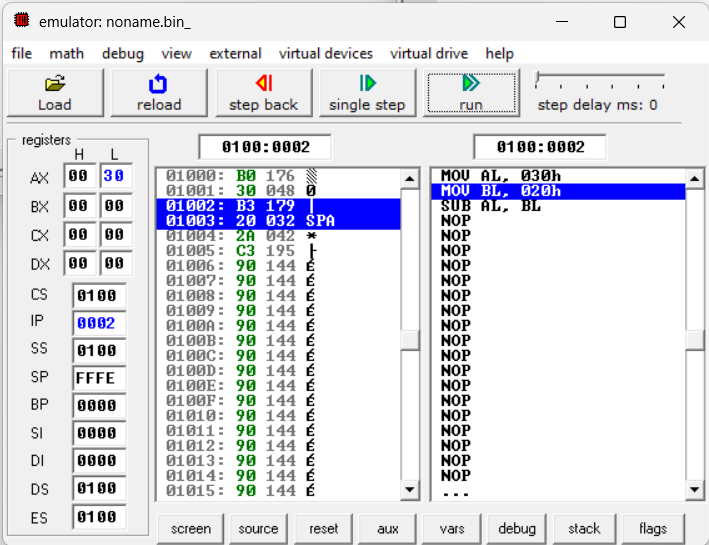
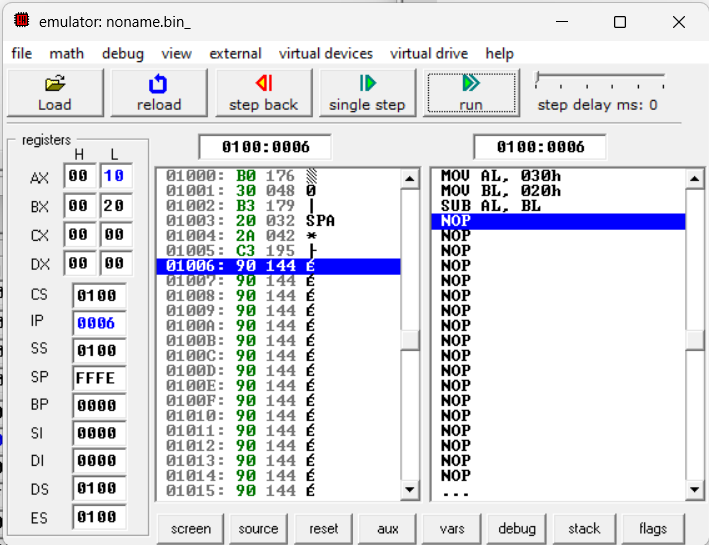
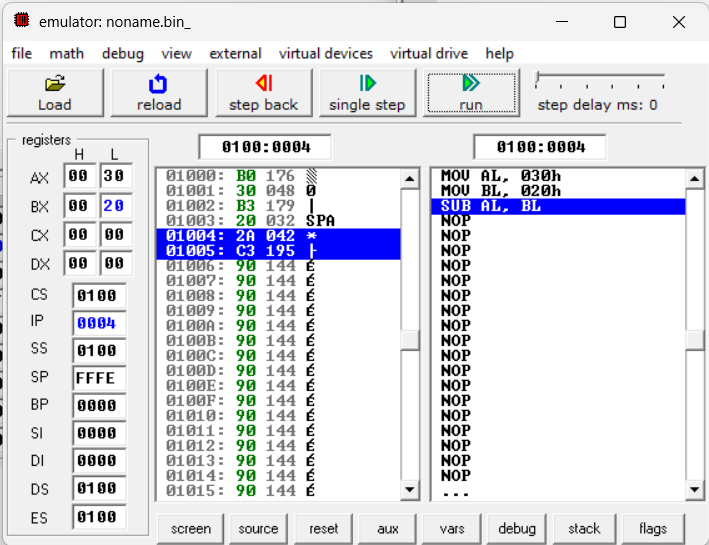
; second number into register

mov BL, 20h

; subtract of both number

sub AL, BL

**Output:**

** **

**Multiplication**

**Assembly Code:**

; first number into register

mov AL, 3h

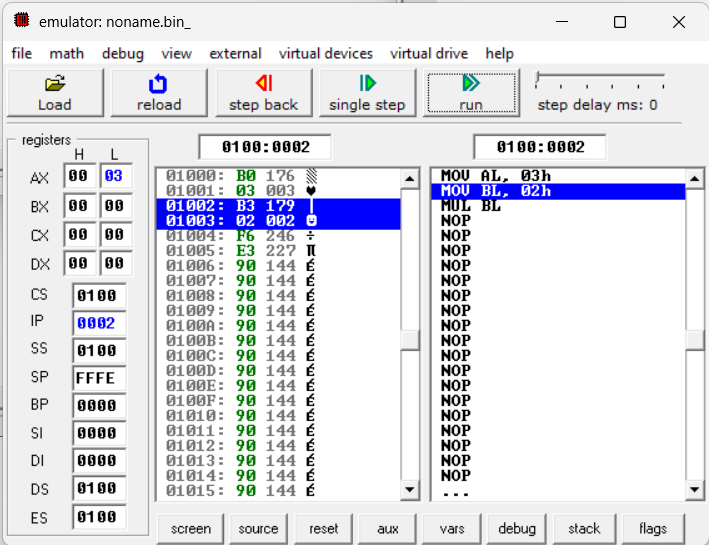
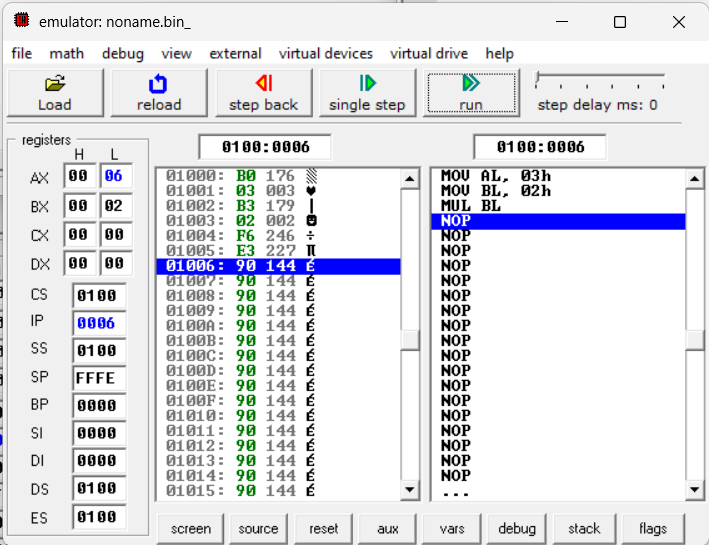
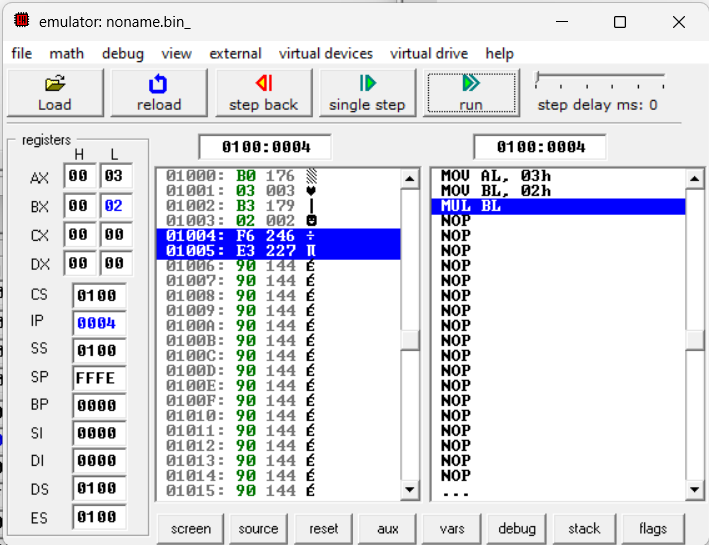
; second number into register

mov BL, 2h

; multiply of both number

mul BL

**Output:**

** **

**Division**

**Assembly Code:**

; first number into register

mov AL, 6h

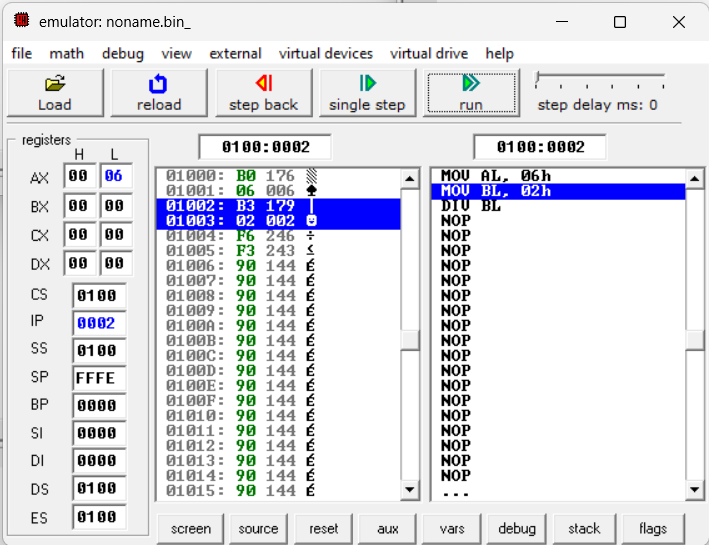
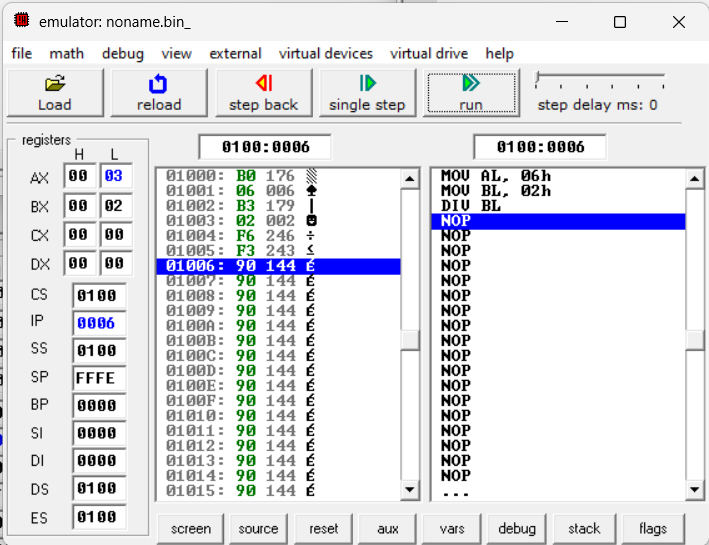
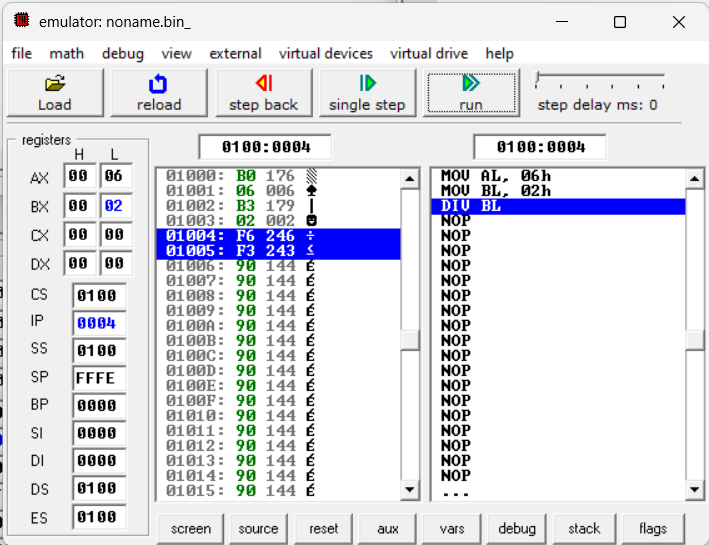
; second number into register

mov BL, 2h

; divide of both number

div BL

**Output:**

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