LAB EXPERIMENT #1

Objective(s)

- Become familiar with memory transfer operations in 8086 emulator software.

Lab Work

- Write a program that adds N one-byte elements.
- First, define **N** as a variable with an initial value of 5. However, this value might change.
- Your memory transfer operations must be done at the data segment (DS), whose starting address must change to 2000h.
- First, initialize the memory starting from address DS:[2000h] with values of consecutive integers starting from 1. Perform this using a loop with a counter of **N**.
  DS:[2000h] → 01H
  DS:[2001h] → 02H
  DS:[2002h] → 03H and so on.
- Finally, sum up **N** integer values and store the result at DS:[2000h+**N**].
- If **N** is 5, the memory should look like the following:
  DS:[2000h] → 01H
  DS:[2001h] → 02H
  DS:[2002h] → 03H
  DS:[2003h] → 04H
  DS:[2004h] → 05H
  DS:[2005h] → 0FH (summation of 5 values from DS:[2000h] to DS:[2004h])

Evaluation

You will be evaluated based on your lab performance.

Note: The value of N will be given during the lab session, and it will be less than 256.