Objective

- Get a handle for manipulating data using the SDK-85 (Student Development Kit)
- Use Appendix F (8085 Instruction Set), specifically the Arithmetic Group, to perform operations on the registers and memory locations of the SDK-85.

Theory

- The SDK-85 (Student Development Kit) is a single board microcomputer system kit using the 8085 processor. It is made by Intel and is now used to teach students about the concepts of microprocessors. Contains the following
    - **Microprocessor**
    - **Memory Element** – This describes both ROM (Read Only Memory) and RAM (Random Access Memory)
        - ROM (Read Only Memory) – Contains system boot up instructions
        - RAM (Random Access Memory) – Has Read/Write capabilities
    - **I/O Unit** – Handles input from user and provides output
- Microprocessors are computer processors that incorporate the functions of a central processing unit on a single integrated circuit (IC) or at most a few integrated circuits. They contain the following:
    - **Combinational logic Unit** – are logic circuits implemented by Boolean (logic gates) circuits, where the output is a pure function of the present input only. Think Half-Adders, Full-Adders, Encoders, and Decoders.
    - **Sequential logic Unit** – this is a type of logic circuit whose output depends on previous inputs as well as on the present inputs.
        - Contains Memory
        - Contains a clock

This lab focuses on **Appendix F (the 8085 Instruction Set)**, specifically the incorporation of **Up and Down Counters**. This is the set of assembly instructions that performs preset programs that's stored in ROM