SUMMARY

FIRST HALF:

- Done Datasheet Reading of **"UltraLowPower SoC with RISCV SingleCore CPU"** which include following topics majorly:
    - Gone through Simplified Block Diagram
    - The block diagram of ESP32-C3 contains
        - Core System
        - Wireless MAC and baseband
        - RF
        - Peripherals
        - RTC
        - Security
    - Pin Descriptions
    - Strapping Pins
    - Functional Description
    - System Clocks
    - Analog Peripherals
    - Cryptographic Hardware Accelerators
    - Serial Peripherals
    - Security

SECOND HALF :

- Completed Python hands-on task (Except 8(Makefile),9)

- Gone through the Topic : “FIFO”
    - What is FIFO

        ➔ FIFO stands for "First In, First Out," and it is a type of data structure commonly used in embedded systems programming. It is a type of queue, where data is added to one end (the "tail") and removed from the other end (the "head"). Data added first is removed first, hence the name "First In, First Out."
        ➔ FIFOs are often used for communication between different parts of a system or between different systems, as they provide a way to store and retrieve data in a predictable order.

    - How FIFO is used to communicate between the processes

        ➔ FIFO allows for data to be passed between processes in a predictable order, with the oldest data being removed first.
        ➔ One way FIFOs are used for inter-process communication is through named pipes.
        ➔ Another way FIFO is used for inter-process communication is through message queues
        ➔ FIFO enables the processes to communicate with each other in a controlled and predictable manner, ensuring that data is not lost and the order of the data is preserved.

    - Named Pipe

        ➔ A named pipe is a special file that acts as a buffer for data being passed between processes. One process writes data to the named pipe, and another process reads that data from the pipe.

Since the data is read in the same order that it was written, the named pipe behaves like a FIFO queue.

- Message Queue

➔ A message queue is a data structure that stores messages and allows multiple processes to send and receive messages in a predictable order. Each message is added to the tail of the queue and removed from the head, maintaining the FIFO order.

- More about Named Pipe

- Attended the training session on Nice pack Wearable Device used majorly for Physiotherapy purpose.