# Assignment-1 On Wi-Fi

1. Write a program for ESP32 to blink on-board LED by setting ESP32's GPIO control registers.

2. Write a program to interface DHT sensor with ESP32 to read data for temperature and humidity.

2.1. Implement a logic to turn on-board LED in 'ON' state, when temperature value exceeds a pre-defined limit.

2.2. Implement a logic to turn on-board LED in 'ON' state, when humidity value exceeds a pre-defined limit.

2.3. Capture the output logs on both "Arduino IDE" and "Tera Term" using serial communication.

3. Verify the total number of clients/STA that can be connected with the ESP32 (ESP32 being an AP).

3.1. Implement a logic to limit number of STA connections to '2' on ESP32-AP.

3.2. If 2-STA are in association with AP (AP and both STA's should be on same network), then implement

3.2.1.   If STA-1 is turning on-board LED 'ON', then another station STA-2 should be able to turn LED 'OFF'.

4. Programme one ESP32 as an access point (AP) and another ESP32 as an STA and perform the following operation:

    1. On pressing on-board button on STA, LED should get turned ON at AP.

    2. On releasing on-board button on STA, LED should get turned OFF at AP.