**Hardware:**

* ESP8266 or ESP32
* DHT11 or DHT22 (Temperature & Humidity sensor)
* BMP180 or BMP280 (Optional - Pressure sensor)
* OLED Display (Optional)

**CODE**

#include <ESP8266WiFi.h>

#include <DHT.h>

#include <ESP8266WebServer.h>

#define DHTPIN D4

#define DHTTYPE DHT11

const char\* ssid = "Your\_SSID";

const char\* password = "Your\_PASSWORD";

DHT dht(DHTPIN, DHTTYPE);

ESP8266WebServer server(80);

void setup() {

Serial.begin(115200);

dht.begin();

WiFi.begin(ssid, password);

while (WiFi.status() != WL\_CONNECTED) {

delay(1000);

Serial.println("Connecting to WiFi...");

}

Serial.println(WiFi.localIP());

server.on("/", []() {

float temp = dht.readTemperature();

float hum = dht.readHumidity();

String page = "<h1>Weather Monitoring</h1>";

page += "<p>Temperature: " + String(temp) + " °C</p>";

page += "<p>Humidity: " + String(hum) + " %</p>";

server.send(200, "text/html", page);

});

server.begin();

}

void loop() {

server.handleClient();

}

**Block Diagram of weather monitoring system** & **Circuit Diagram**

