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#include <WiFi.h>
#include <WebServer.h>
#include <Wire.h>
#include <Adafruit_Sensor.h>
#include <Adafruit_BME280.h>

#define SEALEVELPRESSURE_HPA (1028.8)

Adafruit_BME280 bme;

float temperature, humidity, pressure, altitude;

const char* ssid = xxxxxxxxxxxx; // Enter SSID here
const char* password = xxxxxxxxxxxx; //Enter Password here

WebServer server(80);

void setup() {

Serial.begin(115200);
delay(100);

    bme.begin(0x76);

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

    //connect to your local wi-fi network
    WiFi.begin(ssid, password);
    WiFi.setTxPower(WIFI_POWER_19_5dBm);
    //check wi-fi is connected to wi-fi network
    while (WiFi.status() != WL_CONNECTED) {
        delay(1000);
        Serial.print(".");
    }
    Serial.println("");
    Serial.println("WiFi connected..!");
    Serial.print("Got IP: "); Serial.println(WiFi.localIP());

    server.on("/", handle_OnConnect);
    server.onNotFound(handle_NotFound);

    server.begin();
    Serial.println("HTTP server started");

}

void loop() {
    server.handleClient();
}

void handle_OnConnect() {
    temperature = bme.readTemperature();
    humidity = bme.readHumidity();
    pressure = bme.readPressure() / 100.0F + 95;
    altitude = bme.readAltitude(SEALEVELPRESSURE_HPA);
}

```

```
server.send(200, "text/html",
SendHTML(temperature, humidity, pressure, altitude));
}
```

```
void handle_NotFound() {
server.send(404, "text/plain", "Not found");
}
```

```
String SendHTML(float temperature, float humidity, float pressure, float
altitude) {
```

```
String ptr = "<!DOCTYPE html> <html>\n";
ptr += "<head><meta name=\"viewport\" content=\"width=device-width,
initial-scale=1.0, user-scalable=no\">\n";
ptr += "<title>McIvor Plantation Weather Station</title>\n";
ptr += "<style>html { font-family: Helvetica; display: inline-block;
margin: 0px auto; text-align: center;}\n";
ptr += "body{margin-top: 50px;} h1 {color: #444444;margin: 50px auto
30px;}\n";
ptr += "p {font-size: 24px;color: #444444;margin-bottom: 10px;}\n";
ptr += "</style>\n";
ptr += "</head>\n";
ptr += "<body>\n";
ptr += "<div id=\"webpage\">\n";
ptr += "<h1>McIvor Weather Three</h1>\n";
```

```
ptr += "<p>Temperature: ";
ptr += temperature;
ptr += "&deg;C</p>";
ptr += "<p>Humidity: ";
ptr += humidity;
ptr += "%</p>";
ptr += "<p>Pressure: ";
ptr += pressure;
ptr += "hPa</p>";
ptr += "<p>Altitude: ";
ptr += altitude;
ptr += "m</p>";
ptr += "</div>\n";
ptr += "</body>\n";
ptr += "</html>\n";
return ptr;
}
```