ESP-8266 to Thingspeak

-Sample code using wifimanager library:  
#include <ESP8266WiFi.h>

#include <DNSServer.h>

#include <ESP8266WebServer.h>

#include <WiFiManager.h>

// ThingSpeak settings

const char\* server = "api.thingspeak.com";

String apiKey = "YOUR\_API\_KEY"; // Replace with your ThingSpeak Write API Key

// Replace with your sensor data

int sensorValue = 25; // Example: sending temperature data

void setup() {

Serial.begin(115200);

// Initialize WiFiManager

WiFiManager wifiManager;

// Reset saved Wi-Fi settings if necessary

// wifiManager.resetSettings();

// Automatically connect using saved credentials or setup Wi-Fi

if (!wifiManager.autoConnect("ESP8266\_AP")) {

Serial.println("Failed to connect and hit timeout");

ESP.reset(); // Reset on failed connection

delay(1000);

}

Serial.println("Connected to Wi-Fi");

}

void loop() {

if (WiFi.status() == WL\_CONNECTED) {

HTTPClient http;

// Prepare data to send

String postData = "field1=" + String(sensorValue); // Replace field1 with your data

// Send data to ThingSpeak

http.begin("http://" + String(server) + "/update?api\_key=" + apiKey + "&" + postData);

int httpCode = http.GET();

if (httpCode > 0) {

String payload = http.getString();

Serial.println("ThingSpeak response: " + payload);

} else {

Serial.println("Error sending data");

}

http.end();

} else {

Serial.println("Wi-Fi not connected");

}

delay(20000); // Wait 20 seconds before sending again

}

**How it Works:**

1. **WiFiManager** creates a temporary access point (AP) named "ESP8266\_AP" when the ESP8266 is powered on.
2. The user connects to this AP using a phone or computer and is automatically redirected to a webpage hosted by the ESP8266.
3. On this webpage, the user can input the desired Wi-Fi SSID and password.
4. **WiFiManager** saves the credentials and automatically connects to the specified network.
5. If the ESP8266 successfully connects, it stores the credentials in memory (EEPROM/flash) and reconnects to the same network automatically in the future.

**Additional Features:**

* You can use wifiManager.resetSettings(); in the setup to erase previously stored credentials. Uncomment this line if you need to reset Wi-Fi settings.
* You can customize the name of the AP and even set a password for it by using:

Thingspeak:

https://www.youtube.com/watch?v=5cRE8canHHU