#include <ESP8266WiFi.h>

#include <PubSubClient.h>

//-------- Customise these values -----------

const char\* ssid = "FoxFi69";

const char\* password = "adithya123";

//String command;

#include "DHT.h"

#define DHTPIN D2 // what pin we're connected to

#define DHTTYPE DHT11 // define type of sensor DHT 11

DHT dht (DHTPIN, DHTTYPE);

#define ORG "wc6qda"

#define DEVICE\_TYPE "omkaram"

#define DEVICE\_ID "supriya7270"

#define TOKEN "priya7270"

//-------- Customise the above values --------

char server[] = ORG ".messaging.internetofthings.ibmcloud.com";

char topic[] = "iot-2/evt/Data/fmt/json";

char authMethod[] = "use-token-auth";

char token[] = TOKEN;

char clientId[] = "d:" ORG ":" DEVICE\_TYPE ":" DEVICE\_ID;

WiFiClient wifiClient;

PubSubClient client(server, 1883,wifiClient);

void setup() {

Serial.begin(115200);

Serial.println();

dht.begin();

Serial.print("Connecting to ");

Serial.print(ssid);

WiFi.begin(ssid, password);

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

delay(500);

Serial.print(".");

}

Serial.println("");

Serial.print("WiFi connected, IP address: ");

Serial.println(WiFi.localIP());

}

void loop() {

int sensorvalue=analogRead(A0);

Serial.println(sensorvalue);

float h = dht.readHumidity();

float t = dht.readTemperature();

if (isnan(h) || isnan(t))

{

Serial.println("Failed to read from DHT sensor!");

delay(1000);

return;

}

PublishData(t,h,sensorvalue);

if (!client.loop()) {

mqttConnect();

}

delay(100);

}

void mqttConnect() {

if (!client.connected()) {

Serial.print("Reconnecting MQTT client to "); Serial.println(server);

while (!client.connect(clientId, authMethod, token)) {

Serial.print(".");

delay(500);

}

initManagedDevice();

Serial.println();

}

}

void initManagedDevice() {

if (client.subscribe(topic)) {

Serial.println("subscribe to cmd OK");

} else {

Serial.println("subscribe to cmd FAILED");

}

}

void PublishData(float temp, float humid,int light){

if (!!!client.connected()) {

Serial.print("Reconnecting client to ");

Serial.println(server);

while (!!!client.connect(clientId, authMethod, token)) {

Serial.print(".");

delay(500);

}

Serial.println();

}

String payload = "{\"d\":{\"temperature\":";

payload += temp;

payload+="," "\"humidity\":";

payload += humid;

payload+="," "\"light\":";

payload += light;

payload += "}}";

Serial.print("Sending payload: ");

Serial.println(payload);

if (client.publish(topic, (char\*) payload.c\_str())) {

Serial.println("Publish ok");

} else {

Serial.println("Publish failed");

}

}