# CODING

```
#include <ESP8266WiFi.h>
#include <WiFiClient.h>
#include <PubSubClient.h>
#include "DHT.h"

const char* ssid = "project1";
const char* password = "22222222";

#define DHTPIN 12
#define DHTTYPE DHT22
DHT dht(DHTPIN, DHTTYPE);

#define ID "4wau6e"
#define DEVICE_TYPE "ESP8266"
#define DEVICE_ID "PRO"
#define TOKEN "PROJECT3"

char server[] = ID ".messaging.internetofthings.ibmcloud.com";
char publish_Topic1[] = "iot-2/evt/Data1/fmt/json";
char publish_Topic2[] = "iot-2/evt/Data2/fmt/json";
char publish_Topic3[] = "iot-2/evt/Data3/fmt/json";
char authMethod[] = "use-token-auth";
char token[] = TOKEN;
char clientId[] = "d:" ID ":" DEVICE_TYPE ":" DEVICE_ID;//////a-6758fk-
gbpgmf1xf8///SyKj8fKYlys)9wQ9at

WiFiClient wifiClient;
```

```
PubSubClient client(server, 1883, NULL, wifiClient);

void setup() {
    Serial.begin(115200);
    dht.begin();
    Serial.println();
    WiFi.begin(ssid, password);
    while (WiFi.status() != WL_CONNECTED) {
      delay(500);
      Serial.print(".");
    }
    Serial.println("");
    Serial.println(WiFi.localIP());

    if (!client.connected()) {
        Serial.print("Reconnecting client to ");
        Serial.println(server);
        while (!client.connect(clientId, authMethod, token)) {
            Serial.print(".");
            delay(500);
        }
        Serial.println("Connected TO IBM IoT cloud!");
    }
}

long previous_message = 0;
void loop() {
    client.loop();
    long current = millis();
    if (current - previous_message > 3000) {
```

```
        previous_message = current;
         float ph = 7.8;
         float temp = 32;
         float tu = 1;

//         if (isnan(hum) || isnan(temp)  ){
//    Serial.println(F("Failed to read from DHT sensor!"));
//    return;
//  }

        String payload = "{\"d\":{\"Name\":\"" DEVICE_ID "\"";
             payload += ",\"LOC\":";
             payload += "22.4885° N, 88.3142° E";
             payload += "}}";
        Serial.print("Sending payload: ");
        Serial.println(payload);

        if (client.publish(publish_Topic1, (char*) payload.c_str())) {
           Serial.println("Published successfully");
        } else {
           Serial.println("Failed");
        }


    }
}
```