

PUBLISH DATA TO IBM CLOUD

TEAM ID	PNT2022TMID12350
PROJECT TITLE	INDUSTRY SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM

The screenshot displays the Wokwi IoT simulator interface. On the left, a code editor shows the following C++ code for an ESP32:

```
1 #include <WiFi.h> // library for wifi
2 #include <PubSubClient.h>
3 #include "DHT.h" // Library for dht11
4 #define DHTPIN 15 // what pin we're connected to
5 #define DHTTYPE DHT22
6 DHT dht (DHTPIN, DHTTYPE); // creating the instance by passing pin and type of sensor
7
8 void callback(char* topic, byte* payload, unsigned int payloadLength)
9
10 //-----credentials of IBM Accounts-----
11
12 #define ORG "y6wykx" // IBM ORGANIZATION ID
13 #define DEVICE_TYPE "sprint003" // Device type mentioned in IBM Watson IoT Platform
14 #define DEVICE_ID "spsprint003" // Device ID mentioned in IBM Watson IoT Platform
15 #define TOKEN "1234567890" // Token
16 String data3;
17 float Humidity, Temp;
18
19 //----- Customise the above values -----
20
21 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Server Name
22 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and type of event
23 char subscribeTopic[] = "iot-2/cmd/command/fmt/String"; // cmd. REPRESENT command
24 char authMethod[] = "use-token-auth"; // authentication method
25 char token[] = TOKEN;
26 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; // client id
27
28 //-----
29
30 WiFiClient wifiClient; // creating the instance for wifi client
```

On the right, the simulation window shows a circuit diagram of an ESP32 connected to a DHT22 sensor. Below the diagram, the terminal output displays the following data:

```
Humidity:0.00
Sending payload: {"Temp":-40.00,"Humidity":0.00}
Publish ok
Temp:-40.00
Humidity:0.00
Sending payload: {"Temp":-40.00,"Humidity":0.00}
Publish ok
```

Event	Value	Format	Last Received
event_batch11	{"randomNumber":95,"temp":25,"alert":65}	json	a few seconds ago
event_batch11	{"randomNumber":80,"temp":15,"alert":71}	json	a minute ago
event_batch11	{"randomNumber":70,"temp":0,"alert":37}	json	2 minutes ago
event_batch11	{"randomNumber":05,"temp":0,"alert":55}	json	3 minutes ago
Data	{"temp":-24.09}	json	3 minutes ago

4 Simulations running