

Sprint 2

Team ID	PNT2022TMID15161
Project Name	Industry-specific Intelligent Fire Management System

Configuring IBM IoT Platform and sending data to IBM cloud

The screenshot shows the Wokwi IDE interface for the 'esp32-firedetection.ino' project. The code on the left includes the following IBM cloud credentials (highlighted in a red box):

```
18 //-----credentials of IBM Accounts-----
19
20 #define ORG "pol6f4"//IBM ORGANITION ID
21 #define DEVICE_TYPE "ESP-32IoT"//Device type mentioned in ibm wa
22 #define DEVICE_ID "100100C40A24"//Device ID mentioned in ibm wa
23 #define TOKEN "EnuF+Tgx4Q@YlwJmsq" //Token
24 String data3;
25 float h, t, f;
26
27 //----- Customise the above values -----
28 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
29 char publishTopic[] = "iot-2/cmd/command/fmt/string";
30 char subscribeTopic[] = "iot-2/cmd/command/fmt/string";
31 char authMethod[] = "use-token-auth";
32 char token[] = TOKEN;
33 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
34
```

The simulation on the right shows an ESP32 board connected to a DHT22 sensor and an LCD screen. The LCD screen displays the following data:

```
Temp: 12.30 C
Humid: 62.00 %
Smoke: YES
WARNING! FIRE ACCIDENT
```

A callout points to the LCD screen with the text: "Fire Detection & Indication in LCD Screen".

The screenshot shows the Wokwi IDE interface for the 'esp32-firedetection.ino' project. The code on the left is the same as in the previous screenshot. The simulation on the right shows the same ESP32 board and DHT22 sensor, but the LCD screen now displays:

```
Temp: 12.30 C
Humid: 62.00 %
Smoke: NO
```

A callout points to the LCD screen with the text: "Fire Detection & Indication in LCD Screen".

Another callout points to the code with the text: "Sending Sensor Data to IBM Cloud".

Publishing Sensor Data & Receiving in IBM Cloud

The screenshot displays the IBM Watson IoT Platform interface. At the top, a navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A table lists devices, with one device (ID: 100100C40A24) highlighted. Below the table, the 'Recent Events' tab is selected, showing a list of events. A red box highlights the 'Recent Events' table, and a callout points to it with the text 'Sensor Data Received in IBM Cloud'. The table contains five rows of data, each representing a sensor reading. Below the table, it indicates '0 Simulations running'.

Event	Value	Format	Last Received
Data	{"temp":12.3,"Humid":62,"Smoke":454}	json	a few seconds ago
Data	{"temp":12.3,"Humid":62,"Smoke":482}	json	a few seconds ago
Data	{"temp":12.3,"Humid":62,"Smoke":816}	json	a few seconds ago
Data	{"temp":12.3,"Humid":62,"Smoke":788}	json	a few seconds ago
Data	{"temp":12.3,"Humid":62,"Smoke":663}	json	a few seconds ago

0 Simulations running

**Sensor Data
Received in
IBM Cloud**