

Sprint-4

Team ID	PNT2022TMID29259
Project Name	Project - Industry-Specific Intelligent Fire Management System

Check the Project:

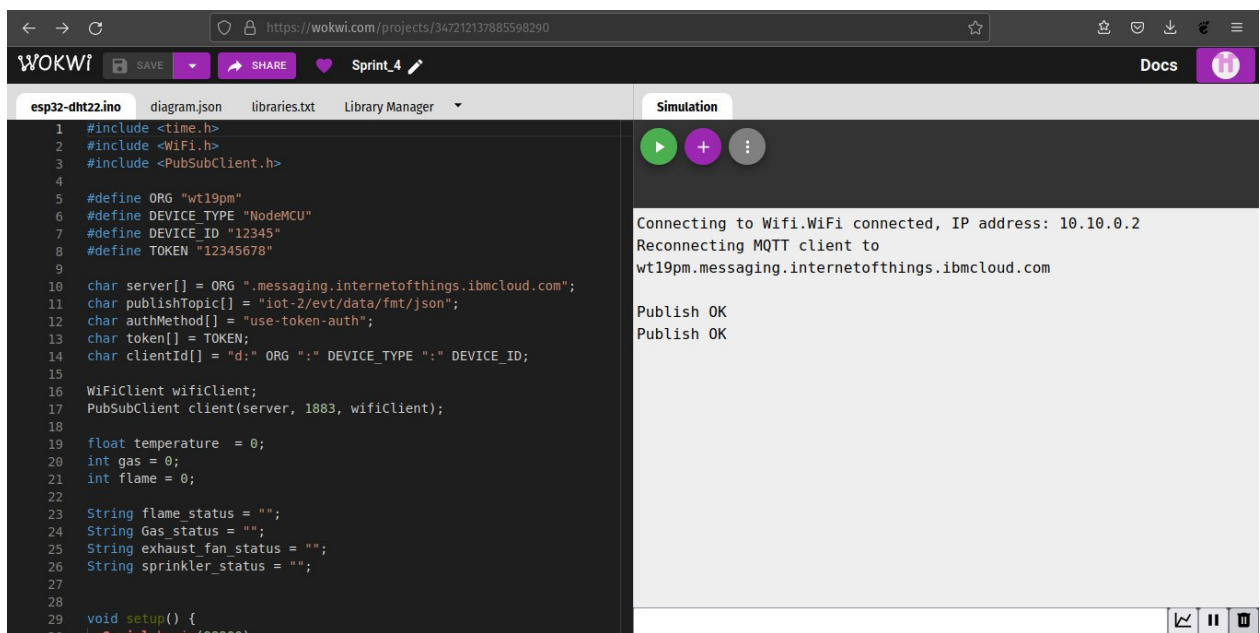
WOKWI SIMULATOR LINK : <https://wokwi.com/projects/348816699284259410>

NODE-RED DASHBOARD UI LINK : https://node-red-dashboard059.eu-gb.mybluemix.net/ui/#!/0?socketid=Dsj_6KQ1Dt6bk-4LAAAW

WEB PAGE LINK : <https://node-red-dashboard059.eu-gb.mybluemix.net/fire>

Preview

WOKWI SIMULATOR :



The screenshot shows the Wokwi web-based simulator interface. On the left, the Arduino IDE editor displays an `esp32-dht22.ino` file with the following code:

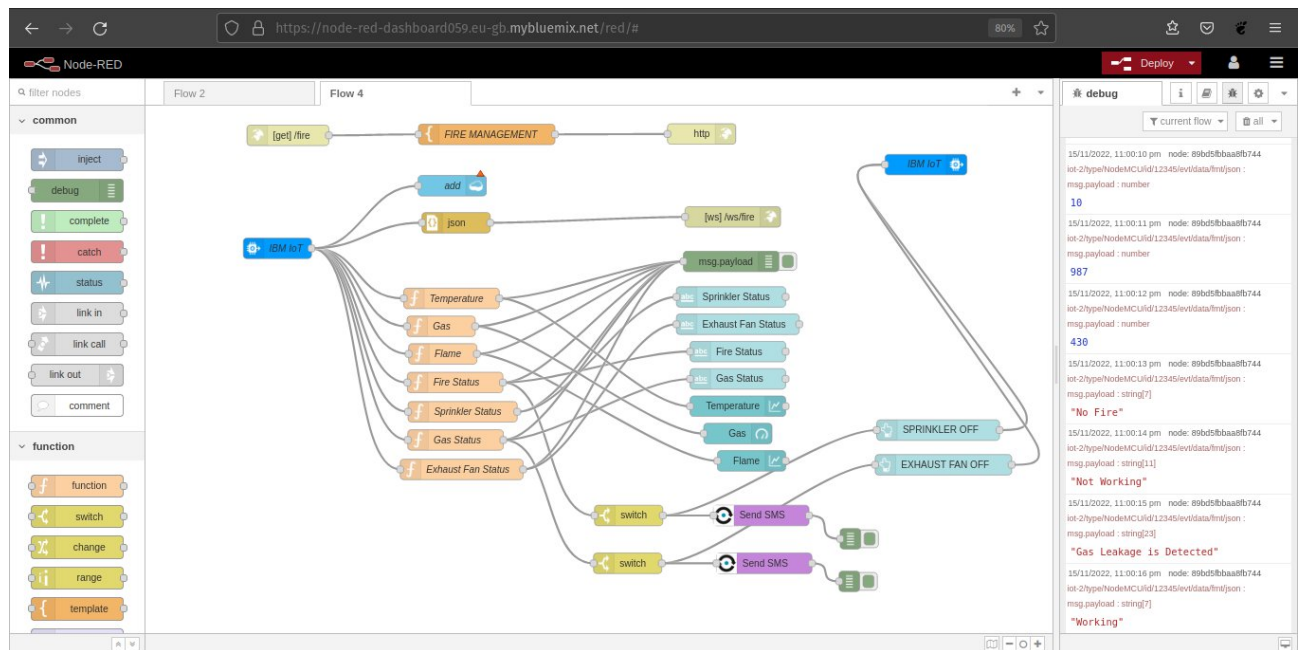
```
1 #include <time.h>
2 #include <WiFi.h>
3 #include <PubSubClient.h>
4
5 #define ORG "wt19pm"
6 #define DEVICE_TYPE "NodeMCU"
7 #define DEVICE_ID "12345"
8 #define TOKEN "12345678"
9
10 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
11 char publishTopic[] = "iot-2/evt/data/fmt/json";
12 char authMethod[] = "use-token-auth";
13 char token[] = TOKEN;
14 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
15
16 WiFiClient wifiClient;
17 PubSubClient client(server, 1883, wifiClient);
18
19 float temperature = 0;
20 int gas = 0;
21 int flame = 0;
22
23 String flame_status = "";
24 String Gas_status = "";
25 String exhaust_fan_status = "";
26 String sprinkler_status = "";
27
28
29 void setup() {
30   Serial.begin(9600);
31 }
```

On the right, the 'Simulation' panel shows the execution log:

```
Connecting to Wifi.WiFi connected, IP address: 10.10.0.2
Reconnecting MQTT client to
wt19pm.messaging.internetofthings.ibmcloud.com

Publish OK
Publish OK
```

NODE RED :



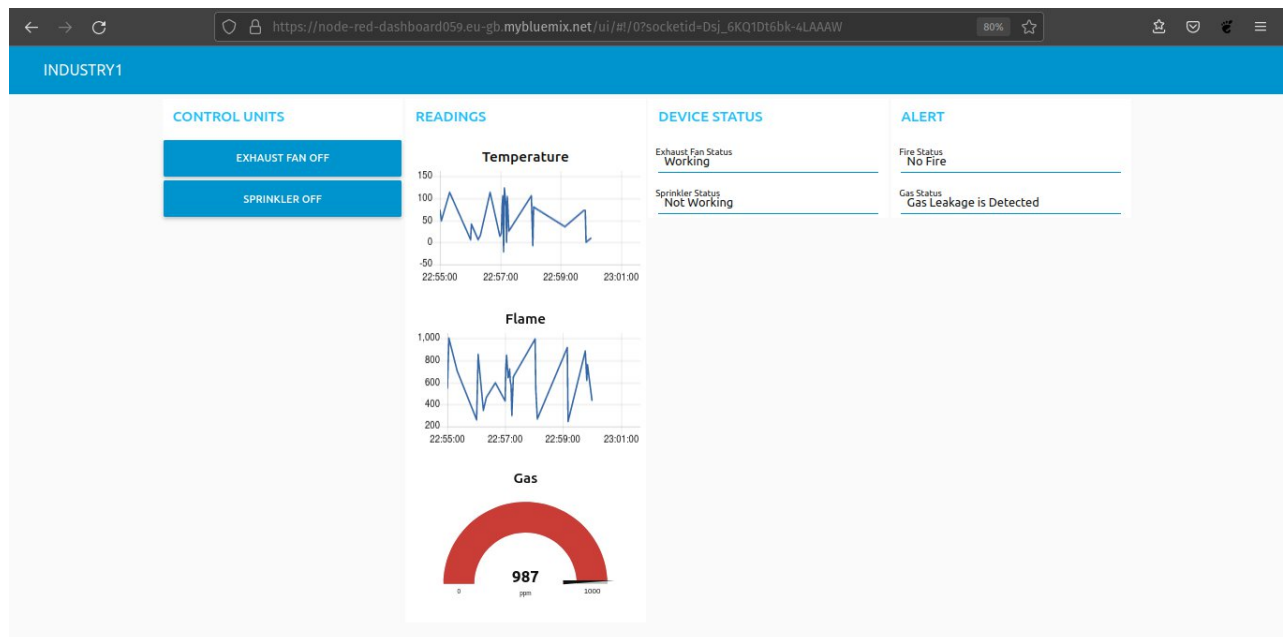
IBM WATSON IOT :

IBM Watson IoT Platform dashboard showing device details for device ID 12345. The device is disconnected. The 'Recent Events' tab is selected, showing a list of events with columns: Event, Value, Format, and Last Received. The events include data, print, and data messages with JSON payloads.

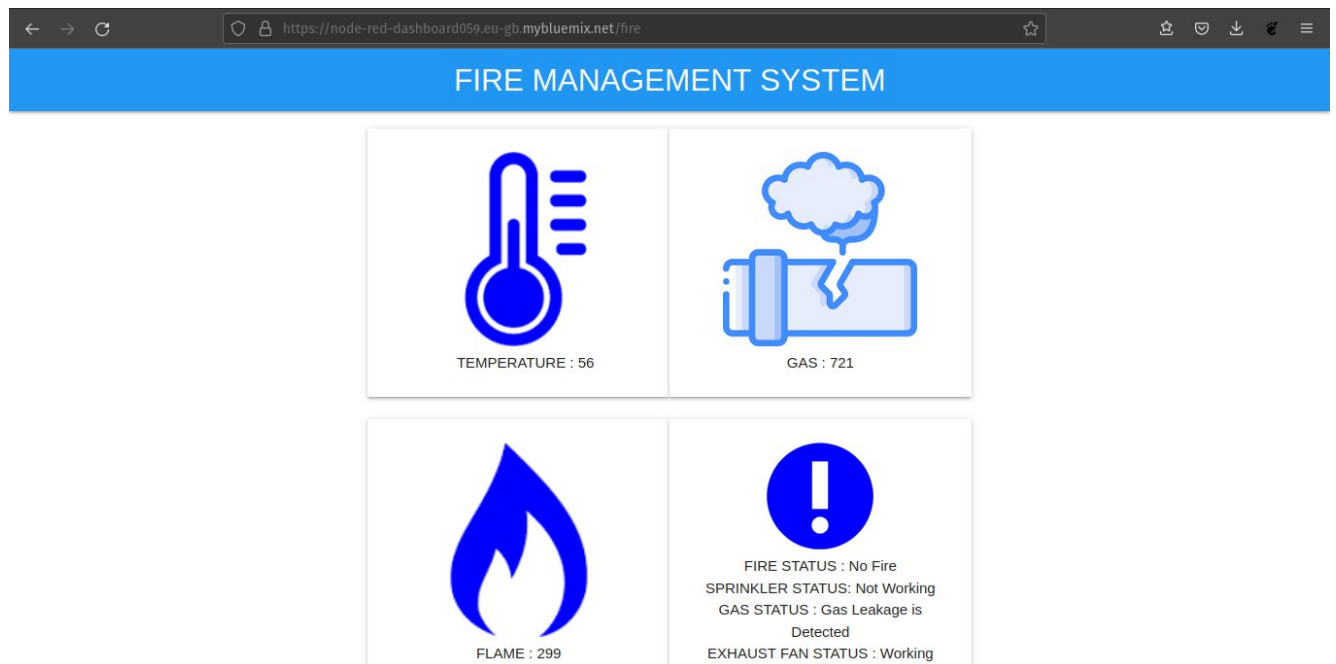
Event	Value	Format	Last Received
data	{"gas":987,"temperature":10,"flame":430,"fire_s...	json	a few seconds ago
print	{"Fire is Detected ":"SPRINKLER OFF"}	json	a few seconds ago
print	{"Gas Leakage is Detected ":"EXHAUST FAN OFF"}	json	a few seconds ago
data	{"gas":331,"temperature":0,"flame":757,"fire_sta...	json	a few seconds ago
data	{"gas":312,"temperature":72,"flame":619,"fire_s...	js	a few seconds ago

0 Simulations running

NODE RED(UI) :



WEB PAGE USING WEB SOCKET:



SMS ALERT :



57575701

11:11 PM

Hurry ! Gas Leakage is Detected
and Exhaust fan is turned
on...[FREE SMS DEMO, TEST
MESSAGE]

Hurry ! Fire is Detected and
Sprinkler is turned on...[FREE
SMS DEMO, TEST MESSAGE]

Hurry ! Gas Leakage is Detected
and Exhaust fan is turned
on...[FREE SMS DEMO, TEST
MESSAGE]



Text message



