### SPRINT 2

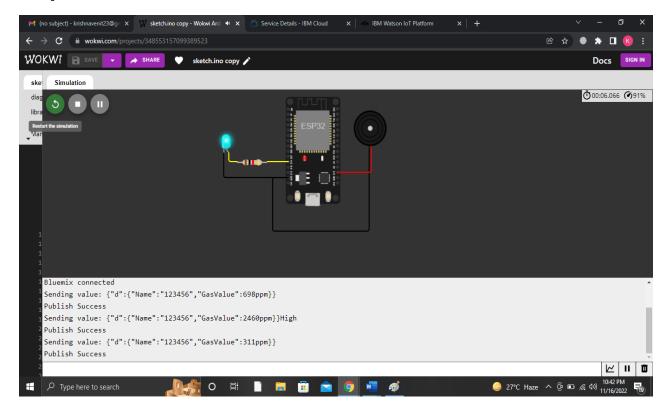
### **Program**

```
#include <WiFi.h>
#include <WiFiClient.h>
#include <PubSubClient.h>
const char* ssid = "Wokwi-GUEST";
const char* password = "";
#define ORG "oeng7r"
#define DEVICE_TYPE "DeviceType"
#define DEVICE_ID "123456"
#define TOKEN "Ch!y&Xu6G(OJiwg08B"
#define led 14
#define buzzer 15
#define pir 2
int sensor_value=0;
int pirState=LOW;
int val=0;
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
char pubTopic[] = "iot-2/evt/status1/fmt/json";
char authMethod[] = "use-token-auth";
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
WiFiClient wifiClient;
PubSubClient client(server, 1883, NULL, wifiClient);
void setup()
 Serial.begin(115200);
 pinMode(led, OUTPUT);
  pinMode(buzzer, OUTPUT);
  pinMode(pir, INPUT);
  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());
 if (!client.connected())
   Serial.print("Reconnecting client to ");
   Serial.println(server);
   while (!client.connect(clientId, authMethod, token))
     Serial.print(".");
     delay(500);
   Serial.println("Bluemix connected");
void loop()
 sensor_value=random(300,10000);
 String payload = "{\"d\":{\"Name\":\"" DEVICE_ID "\"";
 payload += ",\"GasValue\":";
 payload += sensor_value;
 payload += "ppm";
 payload += "}}";
 if(sensor value>1000)
   digitalWrite(led, HIGH);
   delay(500);
   tone(buzzer,1000);
   delay(1000);
   payload += "High";
   val = digitalRead(pir);
   if (val == HIGH)
     if (pirState == LOW)
       Serial.println("Motion detected! Evacuate NOW!!!");
```

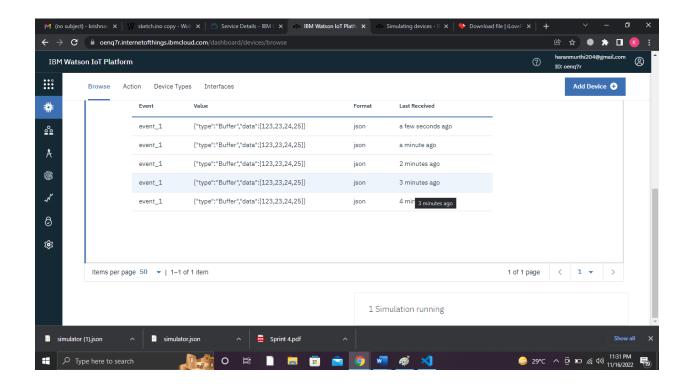
```
Serial.print("Sending value: ");
Serial.println(payload);
if (client.publish(pubTopic, (char*) payload.c_str()))
{
    Serial.println("Publish Success");
}
else
{
    Serial.println("Publish Failed");
}
delay(100);
}
```

## **Output**



# **Event Payload:**

```
"deviceTypes": [
     "id": "DeviceType",
     "running": true,
     "events": [
         "id": "event_1",
         "frequency": {
          "repeat": "1",
           "every": "minute"
         },
         "json": "{\n \"type\":
\"Buffer\",\n \"data\":[\n 123,\n 23,\n 24,\n 25]\n}\n"
     ],
     "devices": [
        "id": "123456",
        "generated": false
     ],
     "managed": {
      "enabled": false
 ],
 "APIKey": "a-oenq7r-gjxcbhqjmn"
```



### Link:

https://wokwi.com/projects/348553157099389523