

## ASSIGNMENT – 2

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IOT

VIT-AP

```
#include <WiFi.h>
#include <PubSubClient.h>

const char* mqttServer = "p9ulgo";
const int mqttPort = "8883";
const char* deviceId = "1234";
const char* deviceToken = "12345678";

WiFiClientSecure wifiClient;
PubSubClient client(wifiClient);

void setup() {
    Serial.begin(115200);
    WiFi.begin(ssid, password);

    while (WiFi.status() != WL_CONNECTED) {
        delay(1000);
        Serial.println("Connecting to WiFi...");
    }

    Serial.println("Connected to WiFi");

    client.setServer(mqttServer, mqttPort);
}

void loop() {
    if (!client.connected()) {
        connectToMQTT();
    }

    client.loop();

    // Read the state of the push button
    int buttonState = digitalRead(buttonPin);

    // Publish the button state to IBM Cloud
    if (buttonState == HIGH) {
        client.publish("iot-2/evt/buttonPressed/fmt/json", "1");
    }
}
```

```
    } else {  
        client.publish("iot-2/evt/buttonPressed/fmt/json", "0");  
    }  
  
    delay(100); // Adjust delay as needed  
}  
  
void connectToMQTT() {  
    while (!client.connected()) {  
        Serial.println("Connecting to MQTT...");  
  
        if (client.connect(deviceId, "use-token-auth", deviceToken)) {  
            Serial.println("Connected to MQTT");  
        } else {  
            Serial.print("MQTT connection failed, error code: ");  
            Serial.println(client.state());  
            delay(2000);  
        }  
    }  
}
```