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#include <ESP8266WiFi.h>
#include <PubSubClient.h>
const char* ssid = "Arif Sofiyan";
const char* password = "qwerty123";
const char* mqttServer = "farmer.cloudmqtt.com";
const int mqttPort = 14815;
const char* mqttUser = "fmgoxjef";
const char* mqttPassword = "IL1SSu8rwf9x";
WiFiClient espClient;
PubSubClient client(espClient);

long lastMsg;
char msg[50];

void setup() {
  Serial.begin(115200);

  pinMode(D0, INPUT);
  pinMode(D8, INPUT);
  pinMode(D3, OUTPUT);
  pinMode(D6, OUTPUT);

  WiFi.begin(ssid, password);
  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.println("Menghubungkan ke wifi..");
  }
}
```

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Serial.println("Terhubung Ke Jaringan WiFi");
client.setServer(mqttServer, mqttPort);

while (!client.connected()) {
    Serial.println("Menghubungkan Ke MQTT...");
    if (client.connect("ESP8266Client", mqttUser,
mqttPassword )) {
        Serial.println("Terhubung");
        client.setCallback(callback);
        client.publish("esp/test", "Perangkat Terhubung");
        client.subscribe("esp/test");
    } else {
        Serial.print("Gagal Terhubung State ");
        Serial.println(client.state());
        delay(2000);
    }
}

client.subscribe("esp/saklar");
client.subscribe("esp/saklar2");

}

void callback(char* topic, byte* payload, unsigned int
length) {
    Serial.print("Mengambil Pesan Dalam Topik: ");
    Serial.println(topic);
    Serial.print("Pesan:");
    for (int i = 0; i < length; i++) {

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    Serial.print((char)payload[i]);
}
Serial.println();
Serial.println("-----");
if (strcmp(topic,"esp/saklar")==0){
    if((char)payload[0] == '1')
    {
        digitalWrite(D4, HIGH);
        Serial.println("Turning on lamp1");
    }
    else if((char)payload[0] == '0'){
        digitalWrite(D4, LOW);
        Serial.println("Turning off lamp1");
    }
}
if (strcmp(topic,"esp/saklar2")==0){
    if((char)payload[0] == '1')
    {
        digitalWrite(D6, HIGH);
        Serial.println("Turning on lamp2");
    }
    else if((char)payload[0] == '0'){
        digitalWrite(D6, LOW);
        Serial.println("Turning off lamp2");
    }
}
}
```

```

long NOW = millis();
long LAST_SENT;

void loop() {
  client.loop();

  while (!client.connected()) {
    Serial.println("Menghubungkan ke MQTT...");
    if (client.connect("ESP8266Client", mqttUser,
mqttPassword )) {
      Serial.println("Terhubung");
      client.setCallback(callback);
      client.subscribe("esp/saklar");
      client.subscribe("esp/saklar2");
    } else {
      Serial.print("Gagal Terhubung State");
      Serial.println(client.state());
      delay(2000);
    }
  }
}

long now = millis();
int status;
int lampu1 = digitalRead(D0);
int lampu2 = digitalRead(D8);
//Mengirim Pesan Dengan Delay 2.0s
if (now - lastMsg > 2000) {
  lastMsg = now;
  status=lampu1,lampu2;
}

```

```
//    lampu1=digitalRead(16);
    Serial.println(lampu1);
//    lampu2=digitalRead(4);
    Serial.println(lampu2);

    if (client.connect("ESP8266Client", mqttUser,
mqttPassword )){
        client.publish("esp/lampu1","CONNECT");
        client.publish("esp/lampu2","CONNECT");

        if(lampu1==HIGH)
        {
            Serial.println("Lampu 1 : ON");
            client.publish("esp/lampu1", "ON");
        }
        else if(lampu1==LOW)
        {
            Serial.println("Lampu 1 : OFF");
            client.publish("esp/lampu1", "OFF");
        }
        if(lampu2==HIGH )
        {
            Serial.println("Lampu 2 : ON");
            client.publish("esp/lampu2", "ON");
        }
        else if(lampu2==LOW)
        {
            Serial.println("Lampu 2 : OFF");
```

```
        client.publish("esp/lampu2", "OFF");
    }
}
else {
    Serial.print("Gagal Terhubung State");
    Serial.println(client.state());
    delay(1000);
}
}
}
```