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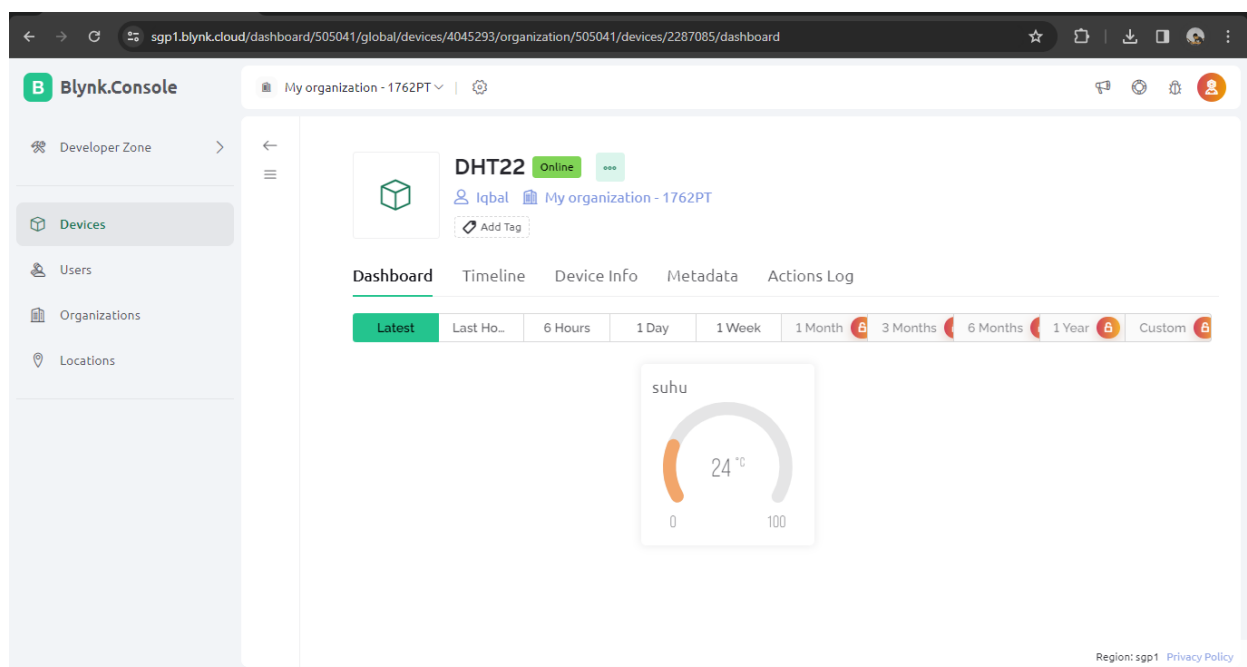
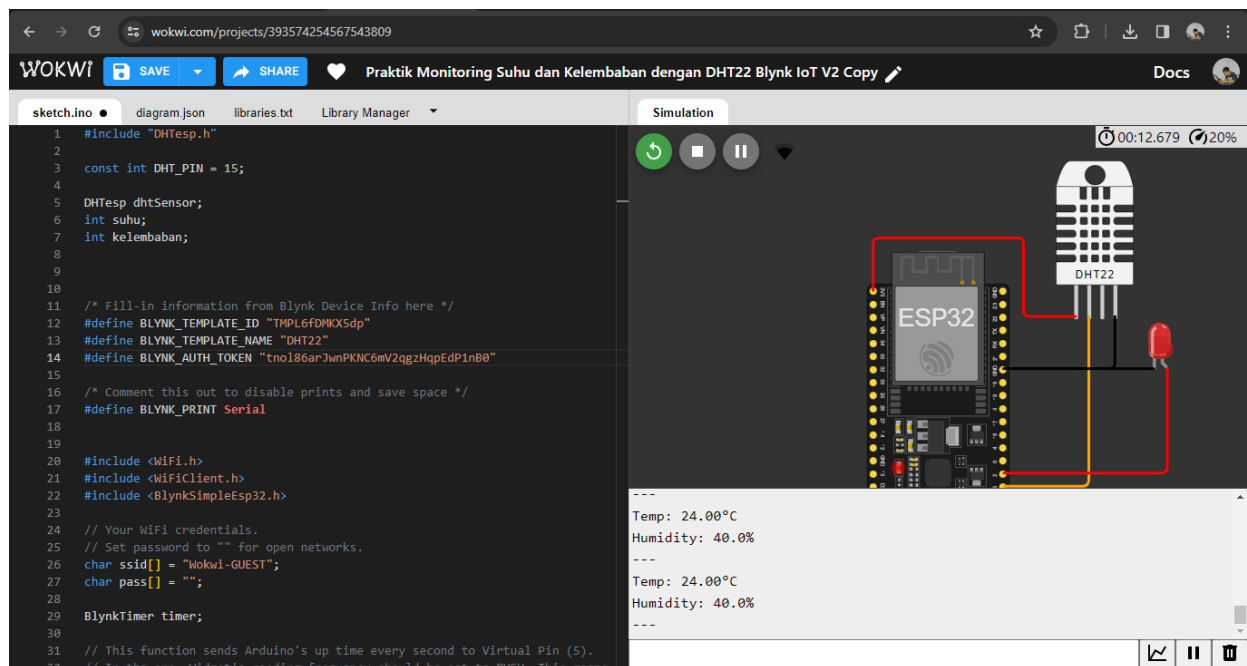
Prodi : Teknik Informatika / 8C

Matkul : Proyek Teknologi Informasi

Topik 6 - Pengenalan Macam-macam Koneksi Protokol IoT seperti HTTP, MQTT, CoAP dan Praktikum Platform Blynk IoT V2

1. Praktik Monitoring Suhu dan Kelembaban dengan DHT22 Blynk IoT V2

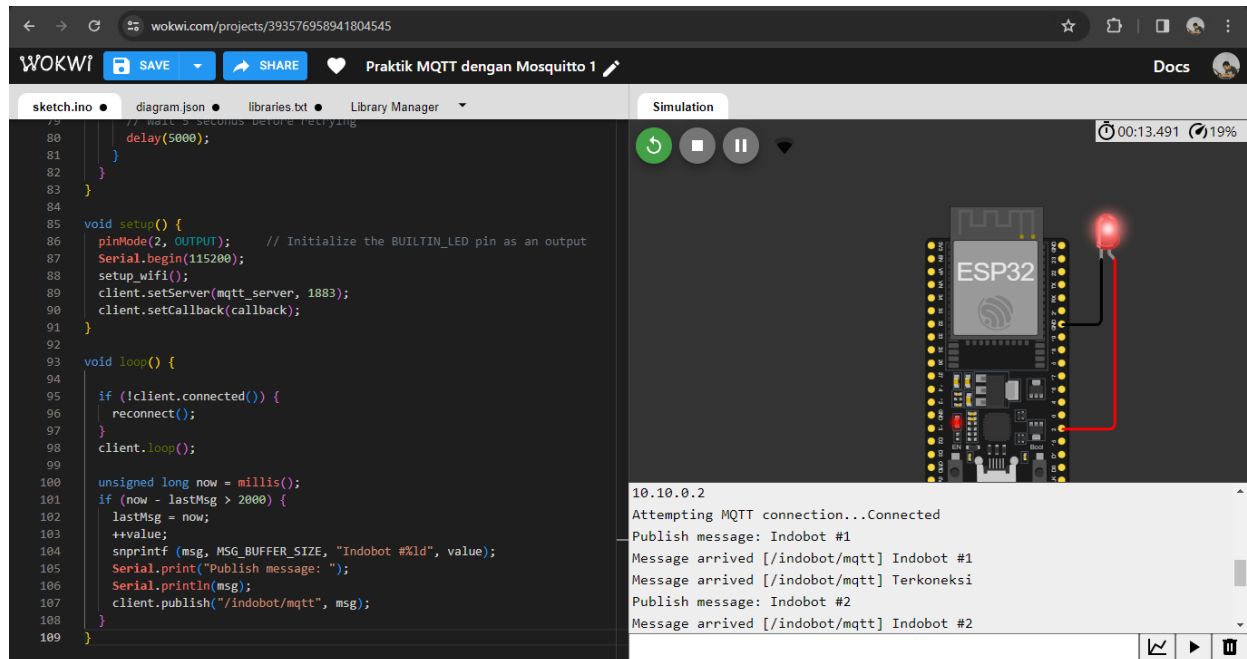
<https://wokwi.com/projects/393574254567543809>



2. Praktik MQTT dengan Mosquitto

MQTT 1: <https://wokwi.com/projects/393576958941804545>

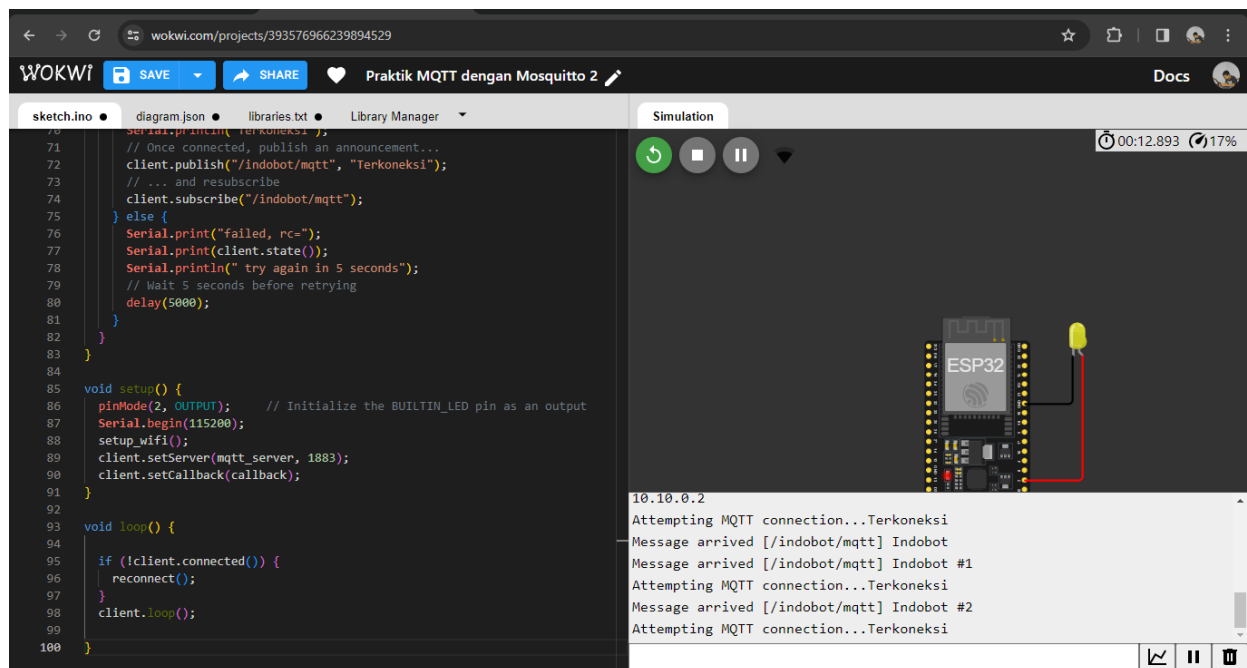
MQTT 2: <https://wokwi.com/projects/393576966239894529>



The screenshot shows the Wokwi web interface for a project titled "Praktik MQTT dengan Mosquitto 1". The left pane displays the Arduino sketch code, which includes a 5-second delay in the loop, a setup function for pin 2 and WiFi, and a loop function that publishes messages to an MQTT broker. The right pane shows a simulation of an ESP32 board with a red LED connected to pin 2. The console output shows the MQTT connection process and the receipt of messages from "Indobot #1" and "Indobot #2".

```
79 // Wait 5 seconds before retrying
80 delay(5000);
81 }
82 }
83 }
84 }
85 void setup() {
86   pinMode(2, OUTPUT); // Initialize the BUILTIN_LED pin as an output
87   Serial.begin(115200);
88   setup_wifi();
89   client.setServer(mqtt_server, 1883);
90   client.setCallback(callback);
91 }
92 }
93 void loop() {
94   if (!client.connected()) {
95     reconnect();
96   }
97   client.loop();
98 }
99 }
100 unsigned long now = millis();
101 if (now - lastMsg > 2000) {
102   lastMsg = now;
103   ++value;
104   snprintf(msg, MSG_BUFFER_SIZE, "Indobot #%ld", value);
105   Serial.print("Publish message: ");
106   Serial.println(msg);
107   client.publish("/indobot/mqtt", msg);
108 }
109 }
```

10.10.0.2
Attempting MQTT connection...Connected
Publish message: Indobot #1
Message arrived [/indobot/mqtt] Indobot #1
Message arrived [/indobot/mqtt] Terkoneksi
Publish message: Indobot #2
Message arrived [/indobot/mqtt] Indobot #2



The screenshot shows the Wokwi web interface for a project titled "Praktik MQTT dengan Mosquitto 2". The left pane displays the Arduino sketch code, which includes a 5-second delay in the loop, a setup function for pin 2 and WiFi, and a loop function that publishes messages to an MQTT broker. The right pane shows a simulation of an ESP32 board with a yellow LED connected to pin 2. The console output shows the MQTT connection process and the receipt of messages from "Indobot #1" and "Indobot #2".

```
70 Serial.println("Terkoneksi");
71 // Once connected, publish an announcement...
72 client.publish("/indobot/mqtt", "Terkoneksi");
73 // ... and resubscribe
74 client.subscribe("/indobot/mqtt");
75 } else {
76   Serial.print("Failed, rc=");
77   Serial.print(client.state());
78   Serial.println(" try again in 5 seconds");
79   // Wait 5 seconds before retrying
80   delay(5000);
81 }
82 }
83 }
84 }
85 void setup() {
86   pinMode(2, OUTPUT); // Initialize the BUILTIN_LED pin as an output
87   Serial.begin(115200);
88   setup_wifi();
89   client.setServer(mqtt_server, 1883);
90   client.setCallback(callback);
91 }
92 }
93 void loop() {
94   if (!client.connected()) {
95     reconnect();
96   }
97   client.loop();
98 }
99 }
100 }
```

10.10.0.2
Attempting MQTT connection...Terkoneksi
Message arrived [/indobot/mqtt] Indobot
Message arrived [/indobot/mqtt] Indobot #1
Attempting MQTT connection...Terkoneksi
Message arrived [/indobot/mqtt] Indobot #2
Attempting MQTT connection...Terkoneksi