Industrial IoT Minor

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Experiment - 8

AIM: Write a program on ESP32/Raspberry Pi to publish DHT11 data through MQTT protocol.

OBJECTIVE: to publish DHT11 data through MQTT protocol in MQTTBox.

THEORY: MQTT is a lightweight, publish-subscribe, machine to machine network protocol for Message queue/Message queuing service. It is designed for connections with remote locations that have devices with resource constraints or limited network bandwidth.

METHODOLOGY:

Software Required:
Download MQTT Box from Google chrome either mobile or PC

- ➢ Open MQTT box
- ➢ Create MQTT client
- ➢ Once create client give a MQTT client name.
- ➢ Select Protocol of MQTT/TCP
- ➢ Username & Password make it blank.
- ➢ Don't touch the MQTT client ID
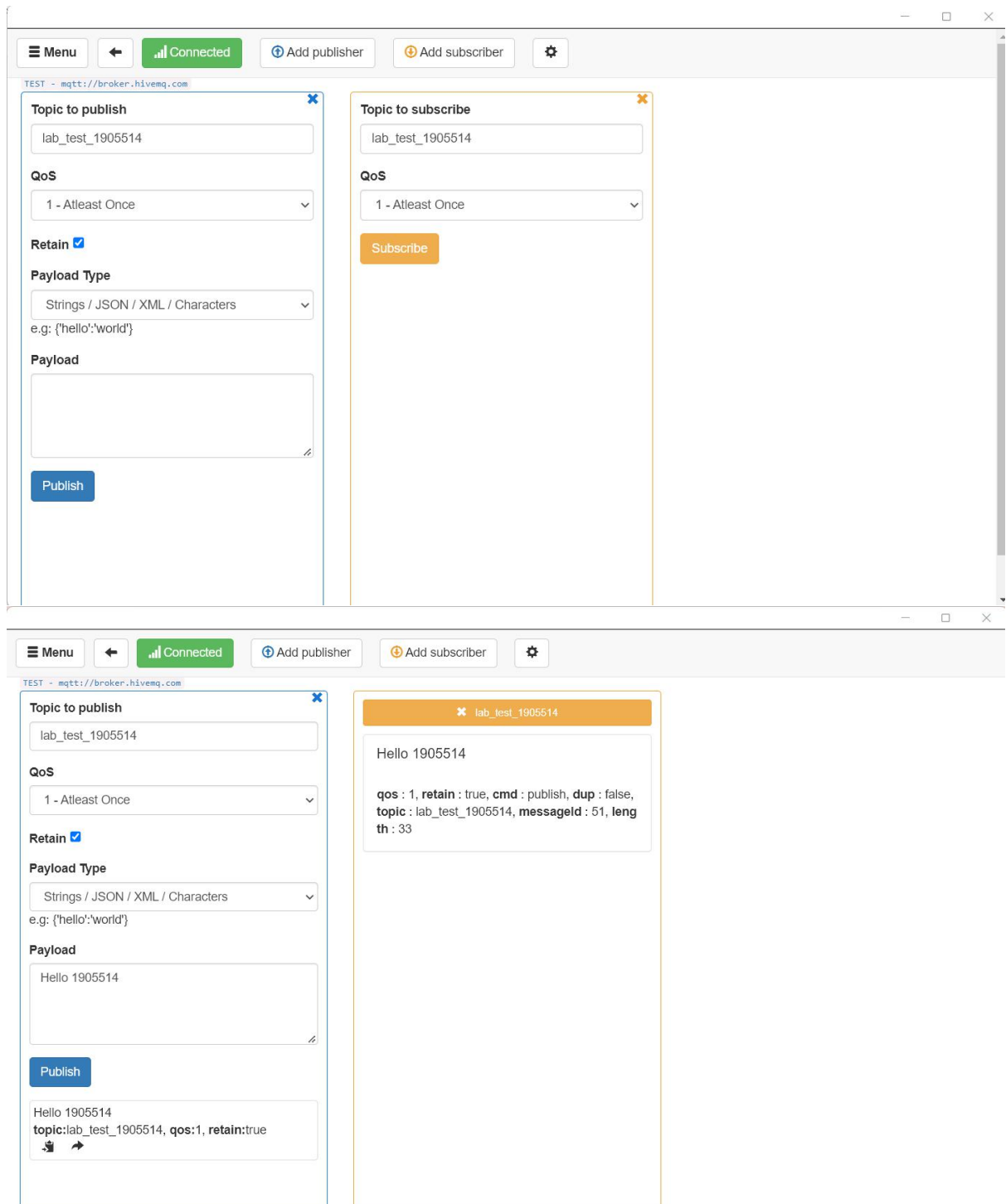- ➢ Host Broker (broker.hivemq.com)
- ➢ Save

RESULT:

No MQTT clients added. Click Create MQTT Client to add new MQTT client

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MQTT Client Name

TEST

MQTT Client Id

5c0150ca-d18a-4ae3-a57e-f ⟳

Append timestamp to MQTT client id?

☑ Yes

Broker is MQTT v3.1.1 compliant?

☑ Yes

Protocol

mqtt / tcp

Host

broker.hivemq.com

Clean Session?

☑ Yes

Auto connect on app launch?

☑ Yes

Username

Username

Password

Password

Reschedule Pings?

☑ Yes

Queue outgoing QoS zero messages?

☑ Yes

Reconnect Period (milliseconds)

1000

Connect Timeout (milliseconds)

30000

KeepAlive (seconds)

10

Will - Topic

Will - Topic

Will - QoS

1 - Atleast Once

Will - Retain

☐ No

Will - Payload

Save   Delete

CONCLUSION: After doing this experiment I was able to perform the the working of PUB-SUB model of MQTT with the help of MQTTBox.