# Testing MQTT messaging with a server in the network

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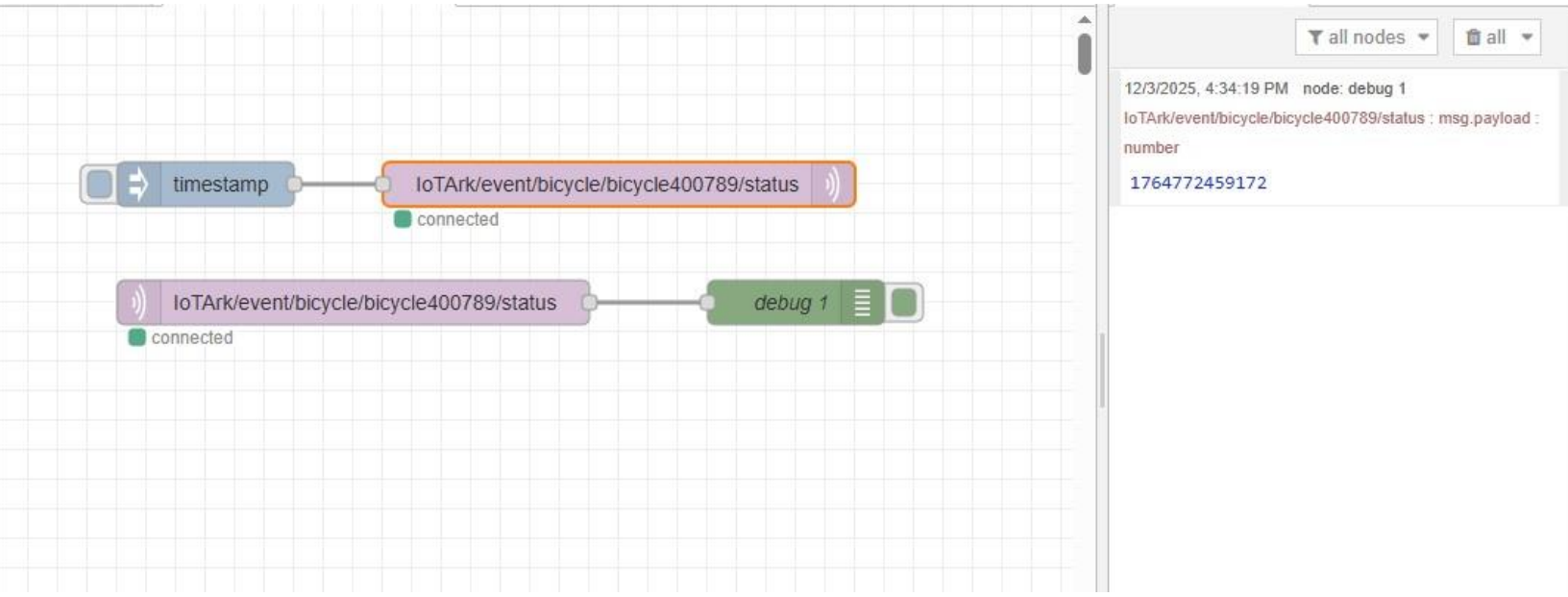
**Report Explanation:**
This report shows the results of testing MQTT topic subscriptions using Node-RED. For each exercise, the flow diagrams and debug panel outputs are provided to demonstrate that the MQTT client correctly receives messages according to the specified topics. The tests include subscribing to a single bicycle status, all bicycle statuses, and all messages from the IoTArk factory, while ignoring messages from other factories or unrelated topics.

I have submitted screenshots of the tasks:

## Question 1 – Exact Topic Subscription



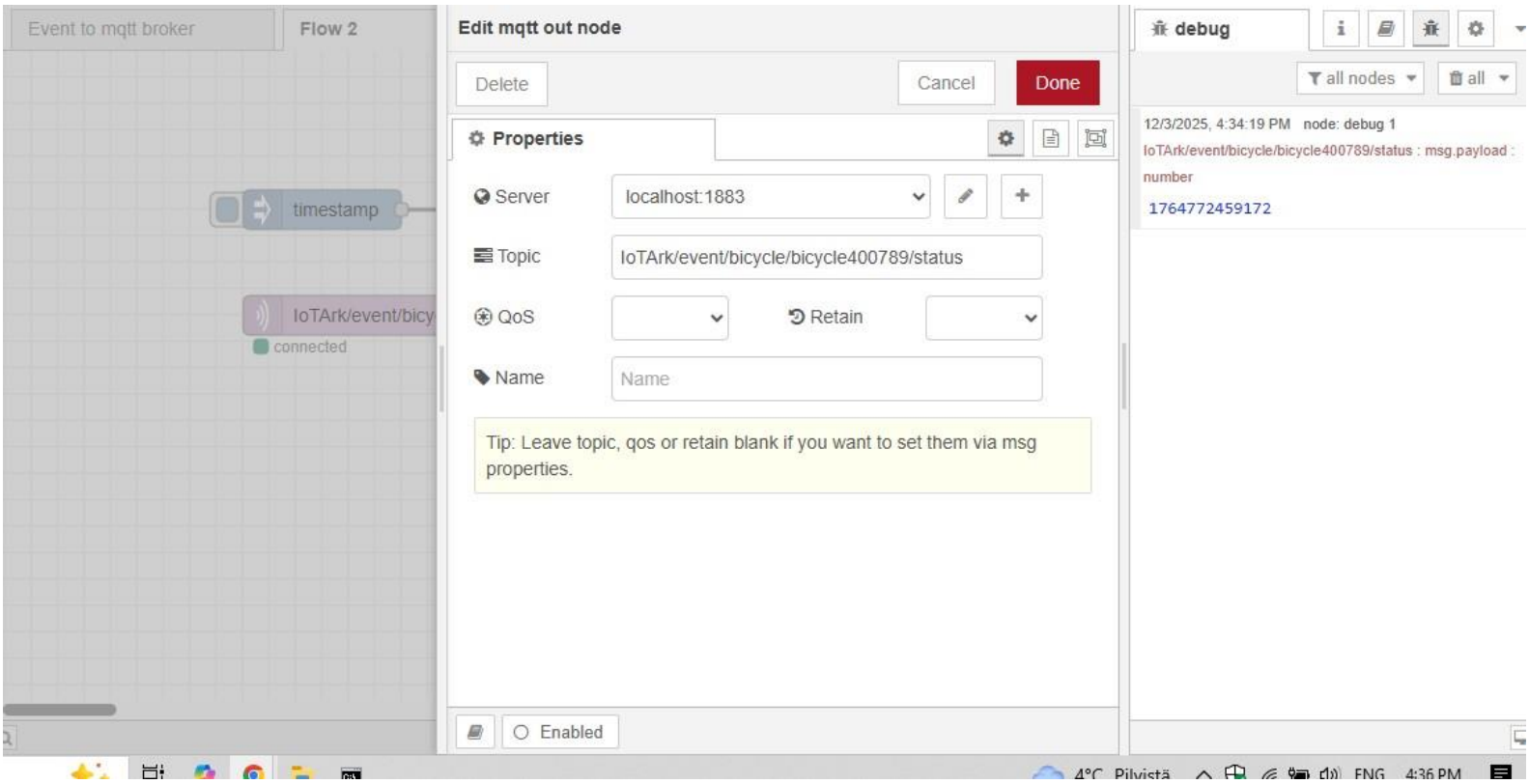



*Fig: question 1*

**Comment:**

- Subscribed to the exact topic of one bicycle.
- Only messages from this topic appear in the debug panel.
- Confirms subscription works for a single, specific topic.

**Question 2 – Status of Any Bicycle**

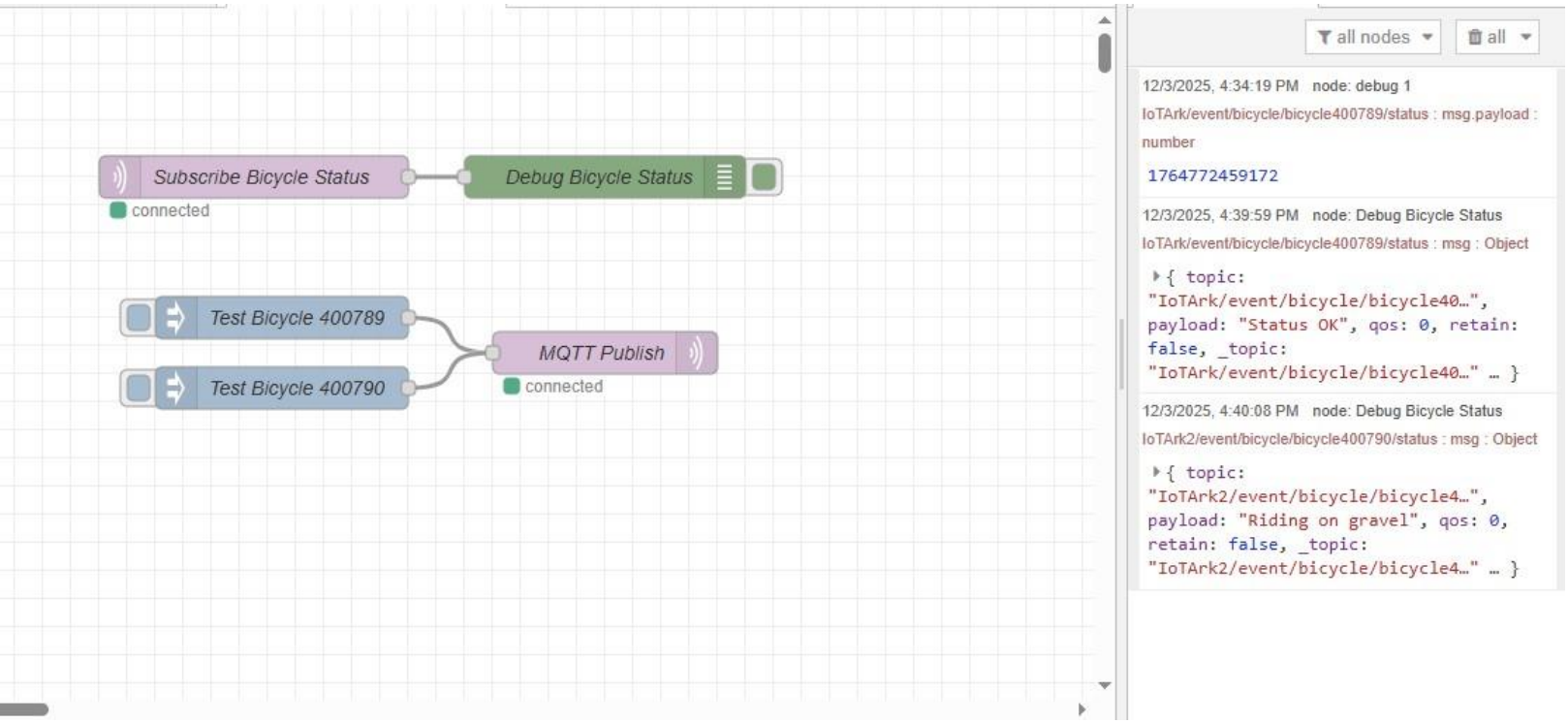



*Fig: question 2*

**Comment:**

- Subscribed using +/event/bicycle/+/status to catch any bicycle status message.
- Messages from all factories and all bicycle serial numbers appear.
- Messages from other device types (scooters, alarms) do not appear.

## Question 3 – All IoTArk Messages

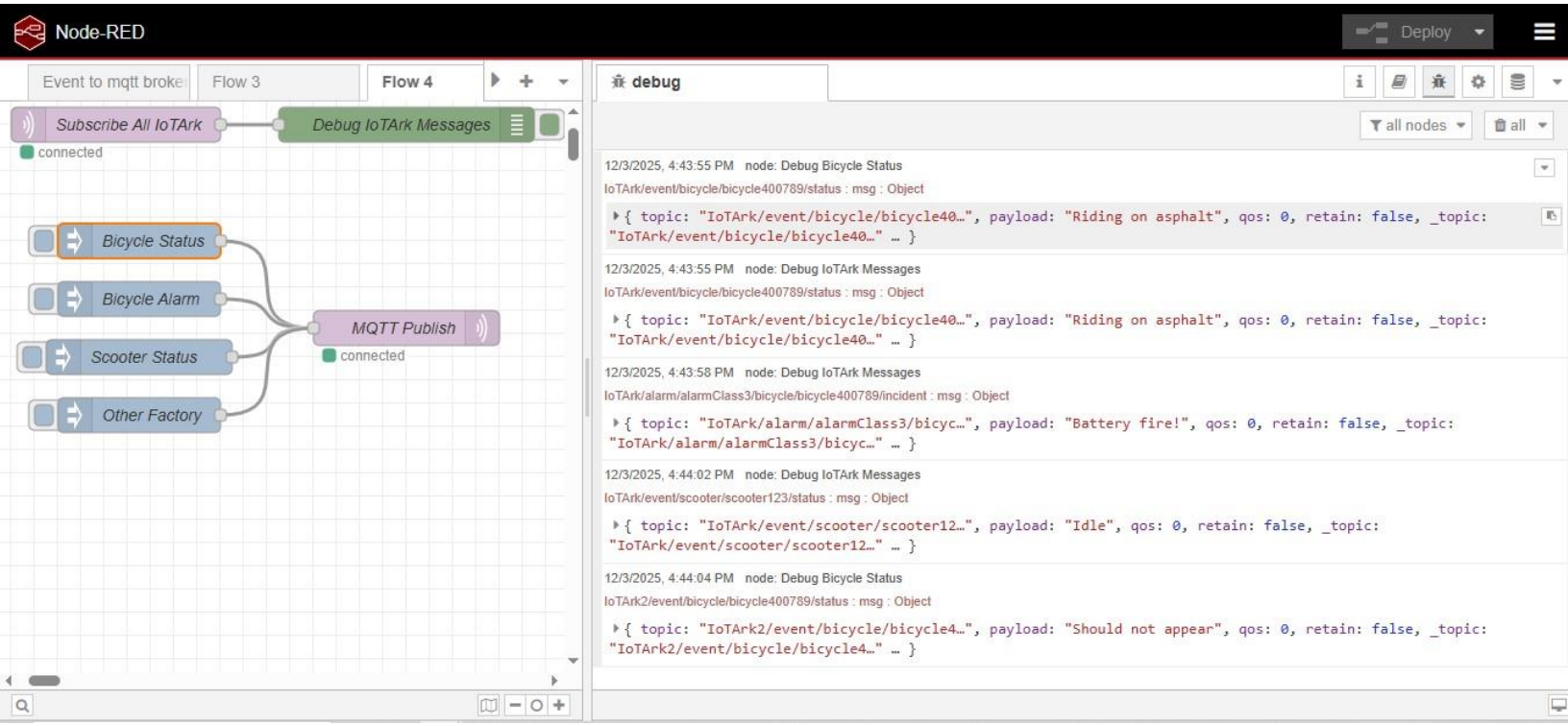



*Fig: question 3*

**Comment:**

- Subscribed using IoTArk/# to catch all messages from IoTArk factory.
- Includes all devices and all events or alarms.
- Messages from other factories (e.g., IoTArk2) are excluded.

**The End**