Mosquitto MQTT Broker Installation Guide (Ubuntu)

This guide provides instructions for installing the Mosquitto MQTT Broker on an Ubuntu system using the official Mosquitto PPA (Personal Package Archive) to ensure you get the latest version.

1. Add the Mosquitto PPA

First, add the official Mosquitto PPA to your system's software sources:

```
sudo apt-add-repository ppa:mosquitto-dev/mosquitto-ppa
```

You will be prompted to press [ENTER] to confirm and add the repository.

2. Update Package Lists

After adding the PPA, refresh your local package database to include the new packages:

```
sudo apt-get update
```

3. Install Mosquitto

Now, install the Mosquitto broker (the server) and the clients (command-line tools for testing):

```
sudo apt-get install -y mosquitto mosquitto-clients
```

4. Check the Service Status

The Mosquitto broker should start automatically after installation. You can verify that it is running:

```
sudo systemctl status mosquitto
```

You should see an "active (running)" status.

5. Test the Installation

A simple way to test the broker is to use the mosquitto_sub (subscriber) and mosquitto_pub (publisher) clients. You will need **two separate terminals** for this.

In Terminal 1 (Subscriber):

Run this command to subscribe to a topic named test/topic. This terminal will now wait for messages.

mosquitto_sub -h localhost -t "test/topic"

In Terminal 2 (Publisher):

Run this command to publish a "hello world" message to the same test/topic:

mosquitto_pub -h localhost -t "test/topic" -m "hello world"

Result:

If the installation is successful, you will instantly see "hello world" appear in Terminal 1.