Setting up the mosquitto broker: -

1. Update Ubuntu's package list and install the latest Mosquitto Broker available from it

sudo apt-get update

sudo apt-get install mosquitto

1. We have installed mosquitto broker locally in our linux machine. And configure it such that the broker started as soon as we start our machine.

* For starting the broker on system-startup, we have do the following steps:

1. sudo nano /etc/systemd/system/mosquitto.service
2. Paste and save this script:

[Unit]

Description=Mosquitto MQTT Broker

Documentation=man:mosquitto(8)

Documentation=man:mosquitto.conf(5)

ConditionPathExists=/etc/mosquitto/mosquitto.conf

After=xdk-daemon.service

[Service]

ExecStart=/usr/sbin/mosquitto -c /etc/mosquitto/mosquitto.conf

ExecReload=/bin/kill -HUP $MAINPID

User=mosquitto

Restart=on-failure

RestartSec=10

[Install]

WantedBy=multi-user.target

1. sudo systemctl enable mosquitto.service
2. sudo reboot
3. We can check the broker running status using:

sudo systemctl status mosquitto

1. We are using mqtt.js ([link](https://github.com/mqttjs/MQTT.js)) npm package for handling mqtt messages to & from the server.
2. The mqtt connection is established separately in both registration.js & existingUser.js which are located in “/server/routes/api” from the root of project folder.
3. The options for mqtt client at the server end is configured in the following manner:

let options = {

"clientId": 'mqttjs\_' + Math.random().toString(16).substr(2, 8),

"keepalive": 60,

"connectTimeout": 30000,

"clean": false,

"protocolId": "MQTT",

"protocolVersion": 4

}

* The client id is randomly generated.
* Keepalive is set to 30sec which signifies that the **connection between the broker and client is open till 15sec even if the client does not send any message.**
* Clean is set to false to receive QoS 1 and 2 messages while offline
* The older and more stable version of Mqtt i.e v4 is used.