

CS5453: IoT

Tutorial on MQTT: Prerequisite

Installing HiveMQ (MQTT Broker)

→ Download the archive: <https://www.hivemq.com/releases/hivemq-4.2.2.zip>

→ Unzip: `unzip hivemq-<version>.zip`

→ Run: `cd <hivemq_install_directory>/bin`

`chmod 755 run.sh`

`./run.sh`

→ Verify: Open `localhost:8080` User: `admin` and Pswd: `hivemq`

Reference Link: <https://www.hivemq.com/developers/getting-started/>

Note: Java version 11 or higher is required. Follow the link for having the same:
<https://www.linuxuprising.com/2019/06/new-oracle-java-11-installer-for-ubuntu.html>

Downloading Mosquitto library

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

`$sudo apt-get update`

`$sudo apt-get install mosquitto`

Reference Link: <https://mosquitto.org/>

Install and build paho.mqtt.c library

`$ apt-get install build-essential gcc make cmake cmake-gui cmake-curses-gui`

`$ apt-get install libssl-dev`

```
$ apt-get install doxygen graphviz
```

```
$sudo apt-get install libcppunit-dev
```

```
$ git clone https://github.com/eclipse/paho.mqtt.c.git
```

```
$ cd paho.mqtt.c
```

```
$ git checkout v1.3.1
```

```
$ cmake -Bbuild -H. -DPAHO_WITH_SSL=ON -DPAHO_ENABLE_TESTING=OFF
```

```
$ sudo cmake --build build/ --target install
```

```
$ sudo ldconfig
```

Reference link: <https://github.com/eclipse/paho.mqtt.cpp> (same link has the buliding step for paho.mqtt.c library as well)

Higher version of Cmake may be required, follow the link for getting the latest version: <https://askubuntu.com/questions/829310/how-to-upgrade-cmake-in-ubuntu>

Note: It's recommended using Linux OS for the tutorial on the bare machine. But if you have windows please try dual boot your laptop with parallel Linux OS as well or else Create a Linux VM with 100GB or more free space in your windows machine.