

eKuiper 5 minutes quick start

1. Pull an eKuiper Docker image from <https://hub.docker.com/r/lfedge/ekuiper/tags>. It's recommended to use alpine image in this tutorial (refer to [eKuiper Docker](#) for the difference of eKuiper Docker image variants).
2. Set eKuiper source to an MQTT server. This sample uses server locating at <tcp://broker.emqx.io:1883>. [broker.emqx.io](#) is a public MQTT test server hosted by [EMQ](#).

```
docker run -p 9081:9081 -d --name ekuiper -e MQTT_SOURCE__DEFAULT__SERVERS=[tcp://broker.emqx.io:1883] lfedge/ekuiper:$tag
```

3. Create a stream - the stream is your stream data schema, similar to table definition in database. Let's say the temperature & humidity data are sent to [broker.emqx.io](#), and those data will be processed in your **LOCAL RUN** eKuiper docker instance. Below steps will create a stream named demo, and data are sent to devices/device_001/messages topic, while device_001 could be other devices, such as device_002, all of those data will be subscribed and handled by demo stream.

```
-- In host
# docker exec -it ekuiper /bin/sh
```

```
-- In docker instance
# bin/kuiper create stream demo '(temperature float, humidity bigint) WITH (FORMAT="JSON", DATASOURCE="
devices/+/messages")'
Connecting to 127.0.0.1:20498...
Stream demo is created.
```

```
# bin/kuiper query
Connecting to 127.0.0.1:20498...
kuiper > select * from demo where temperature > 30;
Query was submit successfully.
```

4. Publish sensor data to topic devices/device_001/messages of server <tcp://broker.emqx.io:1883> with any [MQTT client tools](#). Below sample uses mosquitto_pub.

```
# mosquitto_pub -h broker.emqx.io -m '{"temperature": 40, "humidity" : 20}' -t devices/device_001/messages
```

5. If everything goes well, you can see the message is print on docker bin/kuiper query window. Please try to publish another message with temperature less than 30, and it will be filtered by WHERE condition of the SQL.

```
kuiper > select * from demo WHERE temperature > 30;
[{"temperature": 40, "humidity" : 20}]
```

If having any problems, please take a look at [log/stream.log](#).

6. To stop the test, just press ctrl + c in bin/kuiper query command console, or input exit and press enter.

You can also refer to [eKuiper dashboard documentation](#) for better using experience.

Next for exploring more powerful features of eKuiper? Refer to below for how to apply eKuiper in edge and integrate with AWS / Azure IoT cloud.

- [Lightweight edge computing eKuiper and Azure IoT Hub integration solution](#)
- [Lightweight edge computing eKuiper and AWS IoT Hub integration solution](#)