

## OUTPUTS:

### 1. Build and start the Docker containers with Docker Compose:

`docker-compose up --build`

```
(v reader) rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
8470809e61c7   eclipse-mosquitto:2   "/docker-entrypoint. ..." 10 minutes ago   Exited (0) 8 minutes ago           mqtt_reader_mqtt-sub_1
60ee9a36c5c7   eclipse-mosquitto:2   "/docker-entrypoint. ..." 10 minutes ago   Exited (0) 9 minutes ago           mqtt_reader_mqtt-pub_1
ea041055f89f   mqtt_reader_python-subscriber   "python mqtt_subscri ..." 34 minutes ago   Exited (137) 8 minutes ago        mqtt_reader_python-subscrib
er_1
328487c59a04   eclipse-mosquitto:2   "/docker-entrypoint. ..." 2 hours ago     Up 8 minutes   0.0.0.0:1883->1883/tcp, 0.0.0.0:9001->9001/tcp   mqtt_reader_mosquitto_1
6988e4bb8cb0   eclipse-mosquitto     "/docker-entrypoint. ..." 3 hours ago     Exited (0) 2 hours ago
(v reader) rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker-compose ps
Name                                Command                  State      Ports
-----
mqtt_reader_mosquitto_1             /docker-entrypoint.sh /usr ... Up         0.0.0.0:1883->1883/tcp, 0.0.0.0:9001->9001/tcp
mqtt_reader_mqtt-pub_1              /docker-entrypoint.sh sh - ... Exit 0
mqtt_reader_mqtt-sub_1              /docker-entrypoint.sh sh - ... Exit 0
mqtt_reader_python-subscriber_1     python mqtt_subscriber.py Exit 137
(v reader) rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker-compose run --rm python-subscriber
Starting mqtt_reader_mosquitto_1 ... done
Connected to MQTT broker at mosquitto:1883
Subscribed to topic: /events
Received message on /events: {"sensor_value":20.2}
Disconnected from MQTT broker
Disconnected from MQTT broker
Connected to MQTT broker at mosquitto:1883
Subscribed to topic: /events
Received message on /events: {"sensor_value":20.2}
Disconnected from MQTT broker
Disconnected from MQTT broker
Connected to MQTT broker at mosquitto:1883
Subscribed to topic: /events
Disconnected from MQTT broker
Disconnected from MQTT broker
Connected to MQTT broker at mosquitto:1883
Subscribed to topic: /events
```

### 2.

#### Publishing through the Docker Container

To publish data through the Docker container, execute:

`docker-compose run --rm mqtt-pub`

#### Subscribing through the Docker Container

To subscribe to data through the Docker container, use:

`docker-compose run --rm mqtt-sub`

```
rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker-compose run --rm mqtt-pub
Starting mqtt_reader_mosquitto_1 ... done
rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker-compose run --rm mqtt-pub
Starting mqtt_reader_mosquitto_1 ... done
rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ docker-compose run --rm mqtt-pub
Starting mqtt_reader_mosquitto_1 ... done
rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $
```

### 3. # Without authentication

`mosquitto_sub -v -t .\events`

```
(v reader) rishigargmg@cloudshell:~/mqtt_reader (my-project-20003-171067725540) $ mosquitto_sub -t /events
{"sensor_value":20.2}
{"sensor_value":20.2}
```

### 4.# Without authentication

`mosquitto_pub -t \events' -m '{"sensor_value":20.2}'`

```
~/mqtt_reader (my-project-20003-171067725540) $ mosquitto_pub -t /events -m '{"sensor_value":20.2}'
~/mqtt_reader (my-project-20003-171067725540) $ mosquitto_pub -t /events -m '{"sensor_value":20.2}'
```