Step 1) Update mosquitto repository

run bash command: sudo apt-add-repository ppa:mosquitto-dev/mosquitto-ppa

(if above apt-add-repository command does not work, you might need install softwareproperties-common Package by runing following command first:

sudo apt-get install software-properties-common python-software-properties)

Step 2)install mosquitto

run bash command: sudo apt-get install mosquitto

Step 3)start mosquitto

run bash command: sudo service mosquitto start

Step 4) check mosquitto running status

You should see mosquitto start/running, process xxxx

run bash command: sudo service mosquitto status

Step 5)Check mosquitto port:

run bash command: netstat -anplt | grep 1883

you should see 1883 port is listened by mosquitto process

Step 6) test MQTT broker

First, you need open a new terminal window and install mosquito client by running following commands:

sudo apt-get install mosquitto-clients

Second, issue the given below command to subscribe the topic "mqtt":

sudo mosquitto_sub -h localhost -t "NodeMCU" -v

Last, Open another terminal and issue the given below command to publish message to the topic "mqtt"

sudo mosquitto_pub -h localhost -t "NodeMCU" -m "This is my first MQTT message"

Then you should see a message "This is my first MQTT message" in first terminal window

Congratulations! You have set up your first Mosquitto MQTT server!

Starting of the MQTT:

```
root@padmapriya-Inspiron-352
  File Edit View Search Terminal Help
 mosquitto.service - LSB: mosquitto MQTT v3.1 message broker
Loaded: loaded (/etc/init.d/mosquitto; bad; vendor preset: enabled)
          Active: active (running) since Mon 2018-04-16 16:59:34 IST; 5min ago
                 Docs: man:systemd-sysv-generator(8)
       Process: 809 ExecStart=/etc/init.d/mosquitto start (code=exited, status=0/SUCCESS)
              Tasks: 1 (limit: 512)
          CGroup: /system.slice/mosquitto.service

-898 /usr/sbin/mosquitto -c /etc/mosquitto/mosquitto.conf
Apr 16 16:59:33 padmapriya-Inspiron-3521 systemd[1]: Starting LSB: mosquitto MQTT v3.1 me
Apr 16 16:59:33 padmapriya-Inspiron-3521 mosquitto[809]: * Starting network daemon: mosq
Apr 16 16:59:34 padmapriya-Inspiron-3521 mosquitto[809]: ...done.
Apr 16 16:59:34 padmapriya-Inspiron-3521 systemd[1]: Started LSB: mosquitto MQTT v3.1 mes
Apr 16 17:02:40 padmapriya-Inspiron-3521 systemd[1]: Started LSB: mosquitto MQTT v3.1 mes
lines 1-14/14 (END)

    root@padmapri...
    root@padmapri...

                                                                                                                                                 root@padmapri...
                                                                                                                                                                                                                  Fwd: Mos Com...
                                                                                                                                                                                                                                                                                🎒 Close Firefox
             Menu
```

STARTING OF MQTT CLIENT:

```
root@padmapriya-Inspiron-352
 File Edit View Search Terminal Help
padmapriya@padmapriya-Inspiron-3521 ~ $ sudo su
[sudo] password for padmapriya:
Sorry, try again.
[sudo] password for padmapriya:
                                    1 padmapriya # sudo apt-get install mosquitto-clients
Reading package lists... Done
Building dependency tree

Reading state information... Done

mosquitto-clients is already the newest version (1.4.15-0mosquittol~xeniall).

0 upgraded, 0 newly installed, 0 to remove and 722 not upgraded.
                    nspiron-3521 padmapriya # sudo mosquitto sub -h localhost -t "NodeMCU" -v
                                     🔁 root@padmapriya-I...
                                                                     🔁 root@padmapriya-I...
                                                                                                      🎒 Fwd: Mos Command...
                                                                                                                                      Clos
      Menu
```

PUBLISHING THE DATA IN THE CLIENT SIDE OF MQTT:

root@padma...

Fwd: Mos Co...

🎒 Close Firefox

mos 📆

Menu

root@padma...