

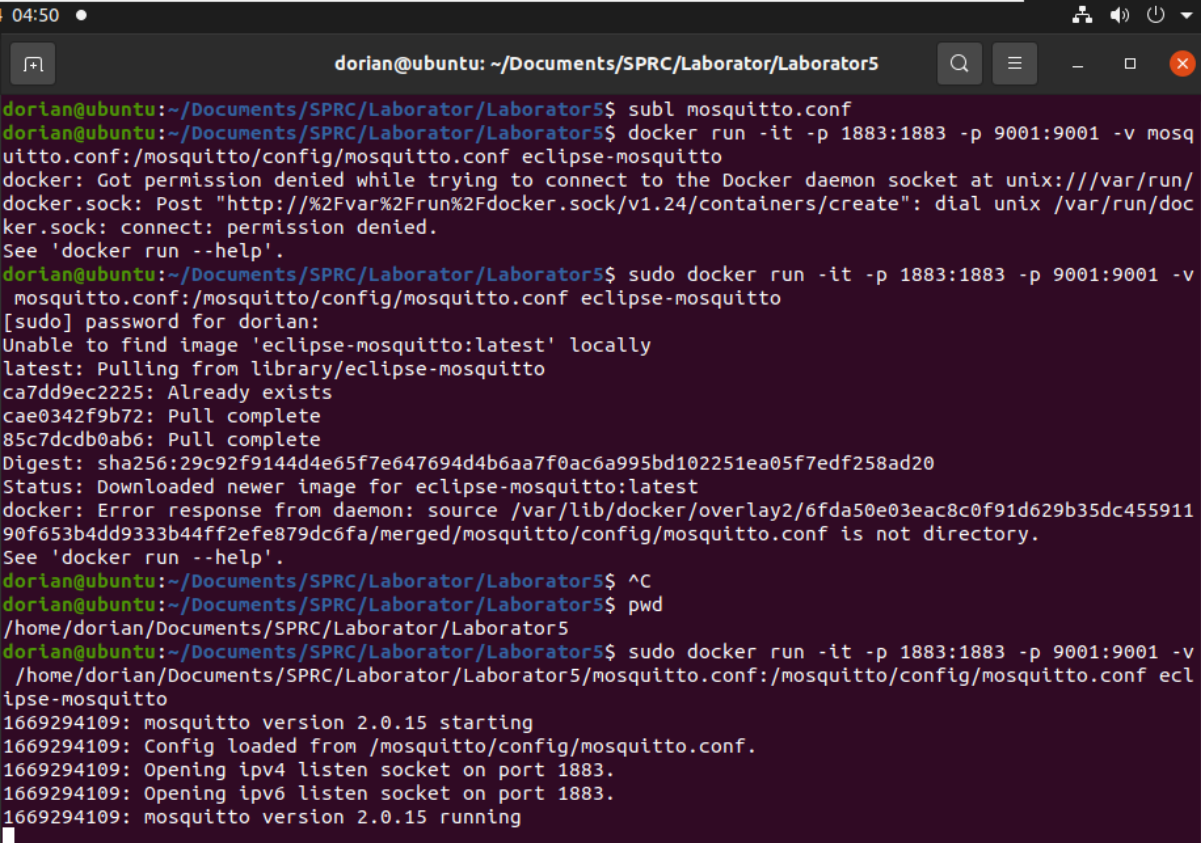
Verna Dorian-Alexandru 341C1

ex1.

Comanda:

```
sudo docker run -it -p 1883:1883 -p 9001:9001 -v
```

```
/home/dorian/Documents/SPRC/Laborator/Laborator5/mosquitto.conf:/mosquitto/config/mosquitto.conf eclipse-mosquitto
```



```
04:50
dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ subl mosquitto.conf
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ docker run -it -p 1883:1883 -p 9001:9001 -v mosquitto.conf:/mosquitto/config/mosquitto.conf eclipse-mosquitto
docker: Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/create": dial unix /var/run/docker.sock: connect: permission denied.
See 'docker run --help'.
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ sudo docker run -it -p 1883:1883 -p 9001:9001 -v mosquitto.conf:/mosquitto/config/mosquitto.conf eclipse-mosquitto
[sudo] password for dorian:
Unable to find image 'eclipse-mosquitto:latest' locally
latest: Pulling from library/eclipse-mosquitto
ca7dd9ec2225: Already exists
cae0342f9b72: Pull complete
85c7dcdb0ab6: Pull complete
Digest: sha256:29c92f9144d4e65f7e647694d4b6aa7f0ac6a995bd102251ea05f7edf258ad20
Status: Downloaded newer image for eclipse-mosquitto:latest
docker: Error response from daemon: source /var/lib/docker/overlay2/6fda50e03eac8c0f91d629b35dc45591190f653b4dd9333b44ff2efe879dc6fa/merged/mosquitto/config/mosquitto.conf is not directory.
See 'docker run --help'.
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ ^C
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ pwd
/home/dorian/Documents/SPRC/Laborator/Laborator5
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ sudo docker run -it -p 1883:1883 -p 9001:9001 -v /home/dorian/Documents/SPRC/Laborator/Laborator5/mosquitto.conf:/mosquitto/config/mosquitto.conf eclipse-mosquitto
1669294109: mosquitto version 2.0.15 starting
1669294109: Config loaded from /mosquitto/config/mosquitto.conf.
1669294109: Opening ipv4 listen socket on port 1883.
1669294109: Opening ipv6 listen socket on port 1883.
1669294109: mosquitto version 2.0.15 running
```

```
dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ docker ps
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/json": dial unix /var/run/docker.sock: connect: permission denied
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ sudo docker ps
[sudo] password for dorian:
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS
d7938f3b4d60   eclipse-mosquitto    "/docker-entrypoint..." 38 seconds ago Up 25 seconds 0.0.0.0:1883->1883/tcp, :::1883->1883/tcp, 0.0.0.0:9001->9001/tcp, :::9001->9001/tcp   unru...
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$
```

ex2.

Aici sunt cei doi clienti pe care i-am rulat:

```
dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py
Connected with result code 0
salut
sprc/chat/VD b'salut'
sprc/chat/VD b'ce faci?'
bine, tu?
sprc/chat/VD b'bine, tu?'
sprc/chat/VD b'bine'
exit
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$

dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py
Connected with result code 0
sprc/chat/VD b'salut'
ce faci?
sprc/chat/VD b'ce faci?'
sprc/chat/VD b'bine, tu?'
bine
sprc/chat/VD b'bine'
exit
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$
```

Aici e codul pentru client:

```
~/Documents/SPRC/Laborator/Laborator5/client.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
< > mosquito.conf x client.py x
1 import paho.mqtt.client as mqtt
2 import time
3
4 def on_connect(client, userdata, flags, rc):
5     print("Connected with result code " + str(rc))
6     client.subscribe("sprc/chat/#")
7
8 # The callback for when a PUBLISH message is received from the server.
9 def on_message(client, userdata, msg):
10     print(msg.topic+" "+str(msg.payload))
11
12 client = mqtt.Client()
13 client.on_connect = on_connect
14 client.on_message = on_message
15
16 client.connect("mqtt.eclipseprojects.io", 1883, 60)
17 client.loop_start()
18
19 time.sleep(1)
20 while True:
21     msg = input()
22     if msg == 'exit':
23         break
24     client.publish("sprc/chat/VD", msg)
25     time.sleep(1)
26
27 client.loop_stop()
28
```

```
import paho.mqtt.client as mqtt
import time
```

```
def on_connect(client, userdata, flags, rc):
    print("Connected with result code " + str(rc))
    client.subscribe("sprc/chat/#")
```

```
# The callback for when a PUBLISH message is received from the server.
def on_message(client, userdata, msg):
    print(msg.topic+" "+str(msg.payload))
```

```
client = mqtt.Client()
client.on_connect = on_connect
client.on_message = on_message
```

```
client.connect("mqtt.eclipseprojects.io", 1883, 60)
client.loop_start()
```

```
time.sleep(1)
```

```
while True:
    msg = input()
    if msg == 'exit':
        break
    client.publish("sprc/chat/VD", msg)
    time.sleep(1)
```

```
client.loop_stop()
```

```
ex3.
```

Aici am facut 3 clienti:

- dorian.verna
- friend
- random

Schimb mesaje cu friend. Random este folosit pentru a vedea ca unele mesaje nu ajung la el. Atasez aici screenshot-uri cu rularile si cu codul.

La sfarsit am si printat mesajul ***DONE

```
File "client.py", line 25, in <module>
    default_publish = "sprc/chat/" + sys.argv[1]
KeyboardInterrupt
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py friend
Connected with result code 0
sprc/chat/Grigore Cosmin b'*** DONE Grigore Cosmin 342C1'
sprc/chat/alexandru.motoi b'*** DONE Motoi Alexandru 342C1'
sprc/chat/catalin.duta b'*** DONE - Duta Catalin Marius - 342C1'
sprc/chat/GeorgeIancu b'*** DONE - Iancu George - 344C1'
sprc/chat/andrei.saceleanu b'exir'
sprc/chat/Agheorghiu b'BumBum shacalaca'
sprc/chat/alexandra.ispas b'*** DONE Ispas Alexandra 344C1'
# Th sprc/chat/StefanPana b'*** DONE - Stefan Pana - 342C1'
def sprc/chat/theodor.tudose b'*** DONE Tudose Theodor-Mihai 344C3'
sprc/chat/student b'Sal'
sprc/chat/dorian.verna b'hello'
cliesprc/friend b'friend: hei'
cliedorian.verna: cf?
cliesprc/friend b'friend:bine, tu?'
dorian.verna:okay
cliesprc/chat/dorian.verna b'conversatie terminata'
cliesprc/chat/dorian.verna b'*** DONE - Verna Dorian-Alexandru - 341C1'
time.sleep(1)
de
wh sprc/chat/theodor.tudose b'*** DONE Tudose Theodor-Mihai 344C3'
sprc/chat/student b'Sal'
sprc/chat/dorian.verna b'hello'
^CTraceback (most recent call last):
  File "client.py", line 25, in <module>
    default_publish = "sprc/chat/" + sys.argv[1]
KeyboardInterrupt
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py random
Connected with result code 0
sprc/chat/Grigore Cosmin b'*** DONE Grigore Cosmin 342C1'
cl sprc/chat/alexandru.motoi b'*** DONE Motoi Alexandru 342C1'
sprc/chat/catalin.duta b'*** DONE - Duta Catalin Marius - 342C1'
sprc/chat/GeorgeIancu b'*** DONE - Iancu George - 344C1'
sprc/chat/andrei.saceleanu b'exir'
sprc/chat/Agheorghiu b'BumBum shacalaca'
sprc/chat/alexandra.ispas b'*** DONE Ispas Alexandra 344C1'
sprc/chat/StefanPana b'*** DONE - Stefan Pana - 342C1'
sprc/chat/theodor.tudose b'*** DONE Tudose Theodor-Mihai 344C3'
sprc/chat/student b'Sal'
sprc/chat/dorian.verna b'hello'
sprc/chat/dorian.verna b'conversatie terminata'
sprc/chat/dorian.verna b'*** DONE - Verna Dorian-Alexandru - 341C1'
```

```

dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py dorian.verna
File "client.py", line 8
    if sys.argv[1] = 'dorian.verna'
                   ^
SyntaxError: invalid syntax
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py dorian.verna
File "client.py", line 8
    if sys.argv[1] == 'dorian.verna'
                       ^
SyntaxError: invalid syntax
dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py dorian.verna
Connected with result code 0
sprc/chat/Grigore Cosmin b'*** DONE Grigore Cosmin 342C1'
sprc/chat/alexandru.motoi b'*** DONE Motoi Alexandru 342C1'
sprc/chat/catalin.duta b'*** DONE - Duta Catalin Marius - 342C1'
sprc/chat/GeorgeIancu b'*** DONE - Iancu George - 344C1'
sprc/chat/andrei.saceleanu b'exir'
sprc/chat/Agheorghiu b'BumBum shacalaca'
sprc/chat/alexandra.ispas b'*** DONE Ispas Alexandra 344C1'
sprc/chat/StefanPana b'*** DONE - Stefan Pana - 342C1'
sprc/chat/theodor.tudose b'*** DONE Tudose Theodor-Mihai 344C3'
sprc/chat/student b'Sal'
hello
sprc/chat/dorian.verna b'hello'
friend: cf?
sprc/friend b'friend: cf?'
^CTraceback (most recent call last):
  File "client.py", line 25, in <module>
    default_publish = "sprc/chat/" + sys.argv[1]
KeyboardInterrupt

dorian@ubuntu:~/Documents/SPRC/Laborator/Laborator5$ python3 client.py dorian.verna
Connected with result code 0
sprc/chat/Grigore Cosmin b'*** DONE Grigore Cosmin 342C1'
sprc/chat/alexandru.motoi b'*** DONE Motoi Alexandru 342C1'
sprc/chat/catalin.duta b'*** DONE - Duta Catalin Marius - 342C1'
sprc/chat/GeorgeIancu b'*** DONE - Iancu George - 344C1'
sprc/chat/andrei.saceleanu b'exir'
sprc/chat/Agheorghiu b'BumBum shacalaca'
sprc/chat/alexandra.ispas b'*** DONE Ispas Alexandra 344C1'
sprc/chat/StefanPana b'*** DONE - Stefan Pana - 342C1'
sprc/chat/theodor.tudose b'*** DONE Tudose Theodor-Mihai 344C3'
sprc/chat/student b'Sal'
hello
sprc/chat/dorian.verna b'hello'
friend: hei
sprc/dorian.verna b'dorian.verna: cf?'
friend:bine, tu?
sprc/dorian.verna b'dorian.verna:okay'
conversatie terminata
sprc/chat/dorian.verna b'conversatie terminata'
*** DONE - Verna Dorian-Alexandru - 341C1
sprc/chat/dorian.verna b'*** DONE - Verna Dorian-Alexandru - 341C1'

```

```
~/Documents/SPRC/Laborator/Laborator5/client.py • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
mosquitto.conf x client.py
1 import paho.mqtt.client as mqtt
2 import time
3 import sys
4
5 def on_connect(client, userdata, flags, rc):
6     print("Connected with result code " + str(rc))
7     client.subscribe("sprc/chat/#")
8     if sys.argv[1] == 'friend':
9         client.subscribe("sprc/friend")
10    if sys.argv[1] == 'dorian.verna':
11        client.subscribe("sprc/dorian.verna")
12
13 # The callback for when a PUBLISH message is received from the server.
14 def on_message(client, userdata, msg):
15     print(msg.topic+" "+str(msg.payload))
16
17 client = mqtt.Client()
18 client.on_connect = on_connect
19 client.on_message = on_message
20
21 client.connect("broker.hivemq.com", 1883, 60)
22 client.loop_start()
23
24 time.sleep(1)
25 default_publish = "sprc/chat/" + sys.argv[1]
26 while True:
27     msg = input()
28
29     if msg == 'exit':
30         break
31     elif msg.startswith("friend:"):
32         client.publish("sprc/" + "friend", msg)
33     elif msg.startswith("dorian.verna:"):
34         client.publish("sprc/" + "dorian.verna", msg)
35     else:
36         client.publish(default_publish, msg)
37
38     time.sleep(1)
39
40 client.loop_stop()
41
```

```
import paho.mqtt.client as mqtt
import time
import sys
```

```
def on_connect(client, userdata, flags, rc):
    print("Connected with result code " + str(rc))
    client.subscribe("sprc/chat/#")
    if sys.argv[1] == 'friend':
        client.subscribe("sprc/friend")
    if sys.argv[1] == 'dorian.verna':
        client.subscribe("sprc/dorian.verna")
```

```
# The callback for when a PUBLISH message is received from the server.
def on_message(client, userdata, msg):
```

```
print(msg.topic+" "+str(msg.payload))

client = mqtt.Client()
client.on_connect = on_connect
client.on_message = on_message
S
client.connect("broker.hivemq.com", 1883, 60)
client.loop_start()

time.sleep(1)
default_publish = "sprc/chat/" + sys.argv[1]
while True:
    msg = input()

    if msg == 'exit':
        break
    elif msg.startswith("friend:"):
        client.publish("sprc/" + "friend", msg)
    elif msg.startswith("dorian.verna:"):
        client.publish("sprc/" + "dorian.verna", msg)
    else:
        client.publish(default_publish, msg)

    time.sleep(1)

client.loop_stop()
```