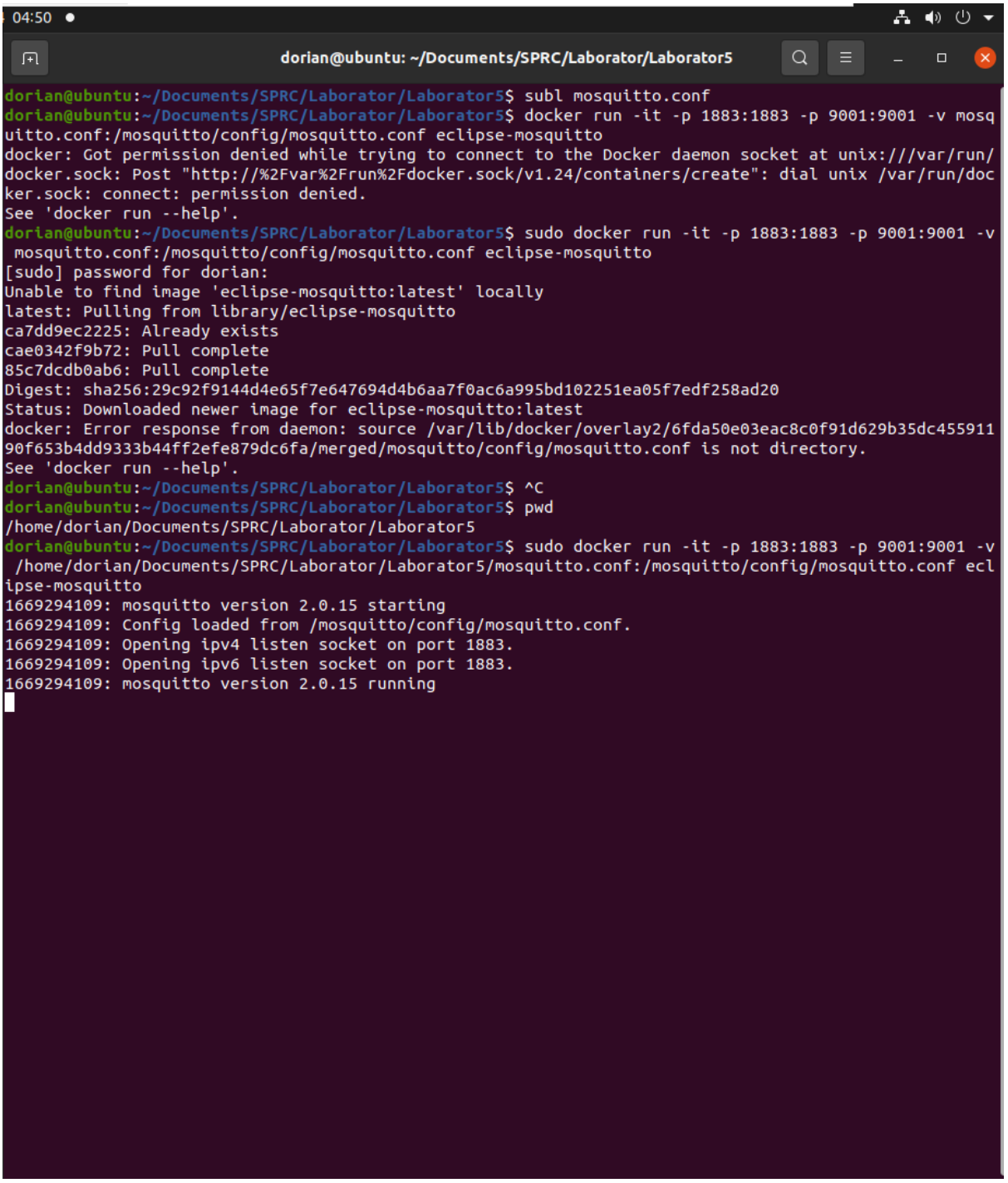
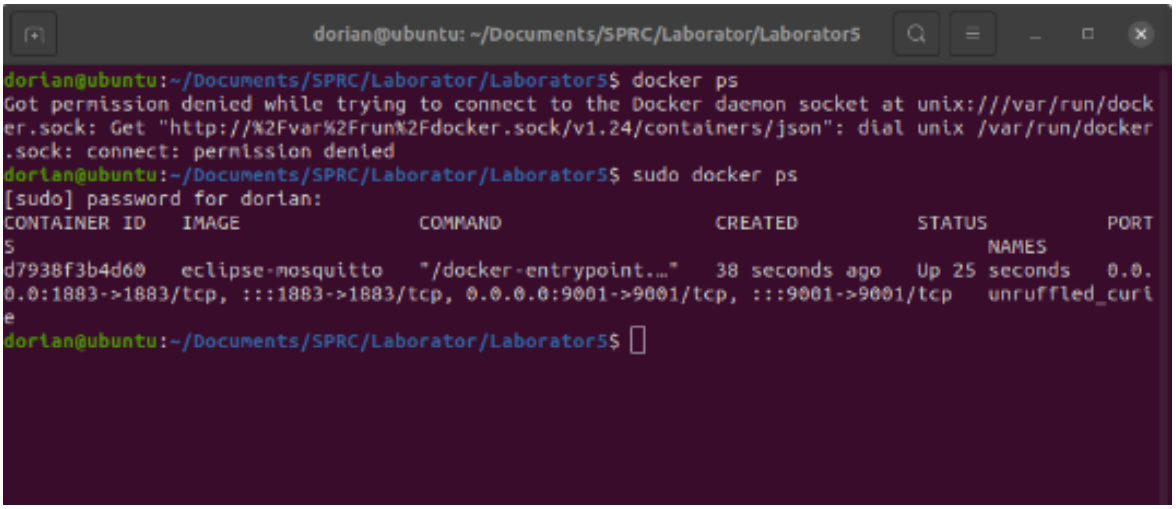
Verna Dorian-Alexandru 341C1

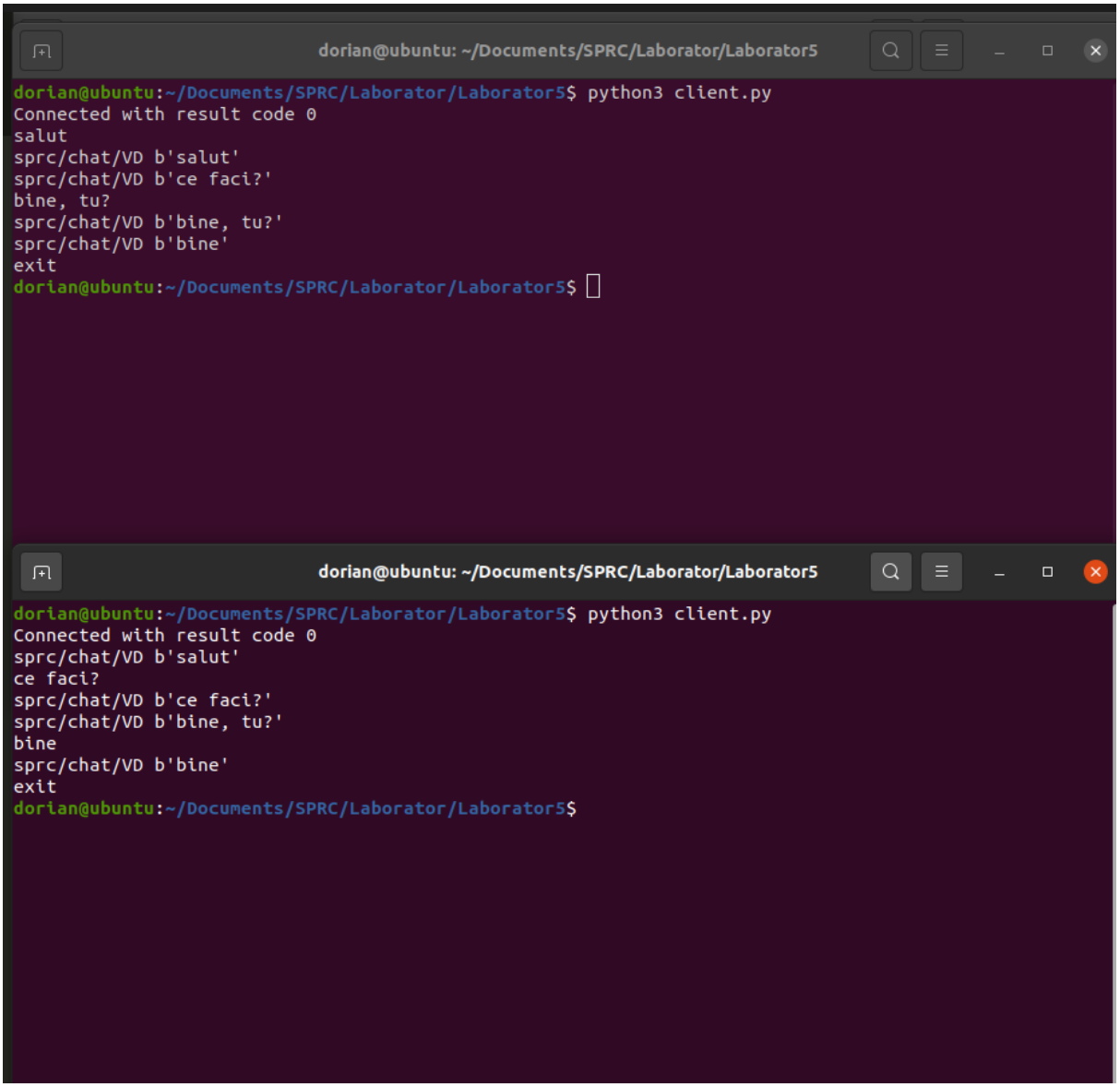
ex1.

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

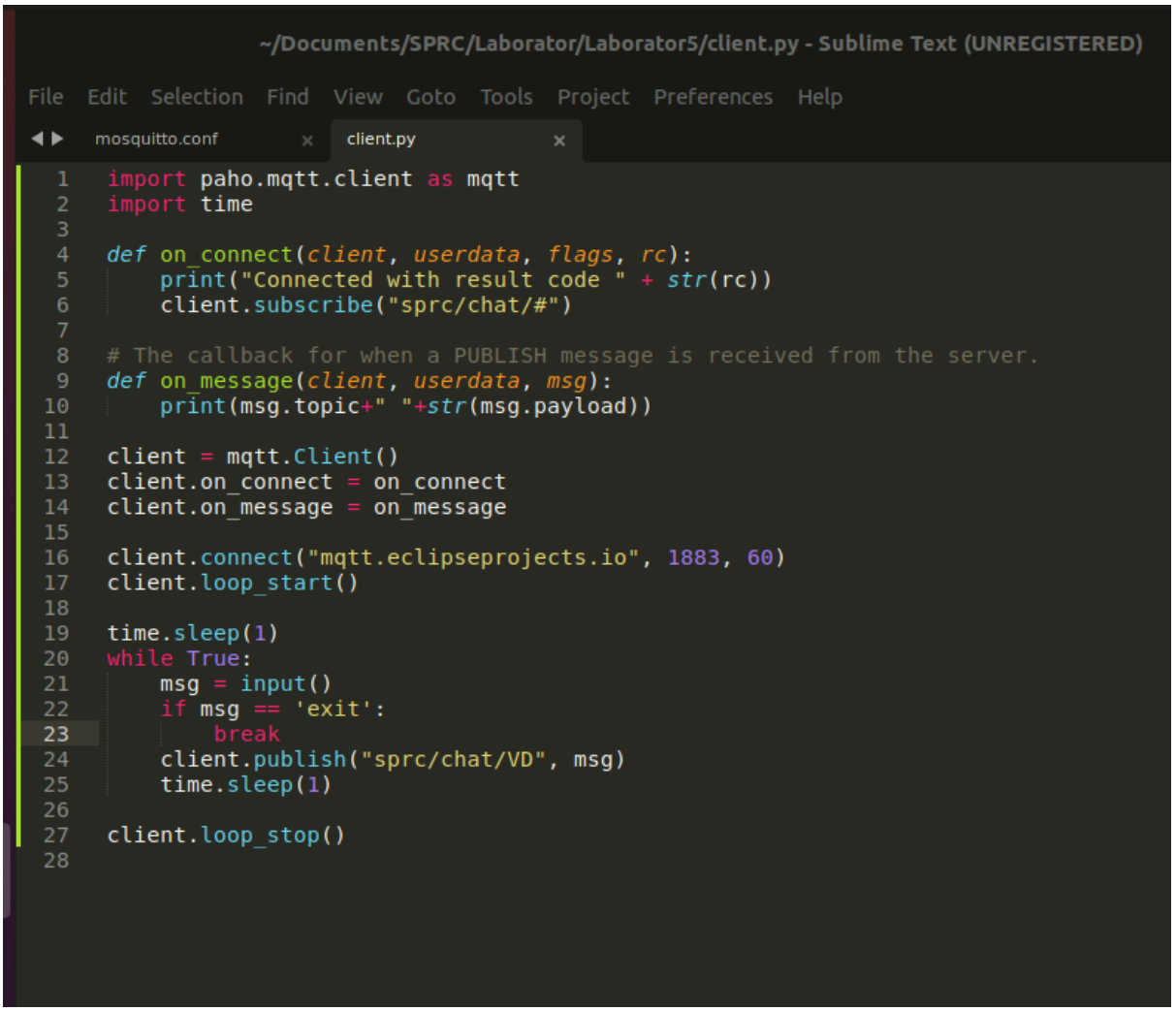




ex2.
Aici sunt cei doi clienti pe care i-am rulat:



Aici e codul pentru client:




```
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)
```

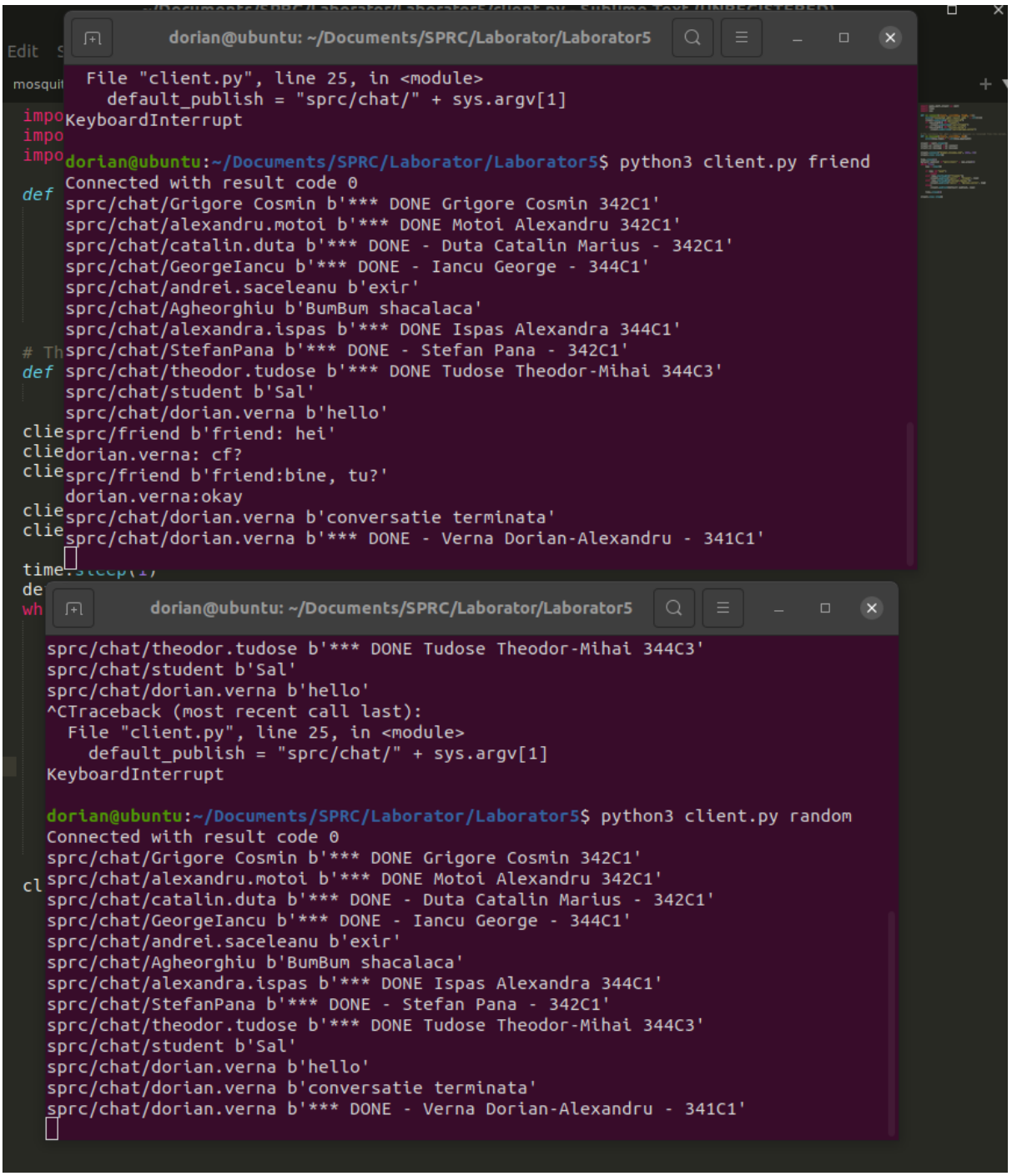
```
while True:
    msg = input()
    if msg == 'exit':
        break
    client.publish("sprc/chat/VD", msg)
    time.sleep(1)

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


dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
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'
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/friend b'friend: hei'
dorian.verna: cf?
sprc/friend b'friend:bine, tu?'
dorian.verna:okay
sprc/chat/dorian.verna b'conversatie terminata'
sprc/chat/dorian.verna b'*** DONE - Verna Dorian-Alexandru - 341C1'
dorian@ubuntu: ~/Documents/SPRC/Laborator/Laborator5
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'
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'
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sprc/chat/catalin.duta b'*** DONE - Duta Catalin Marius - 342C1'
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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'
```

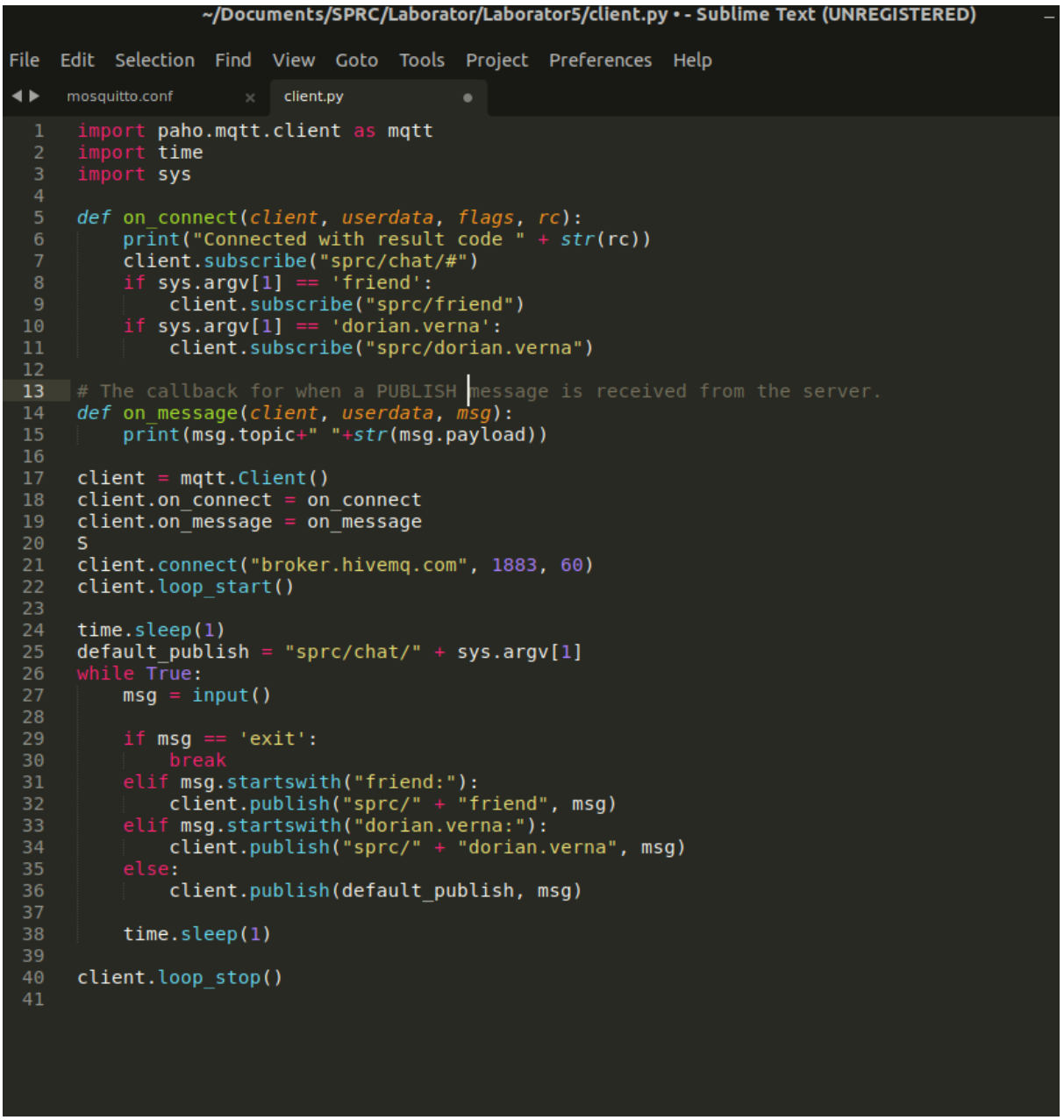


```
import paho.mqtt.client as mqtt
import time
import sys

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()
```