

4. Testing your MQTT Communication:

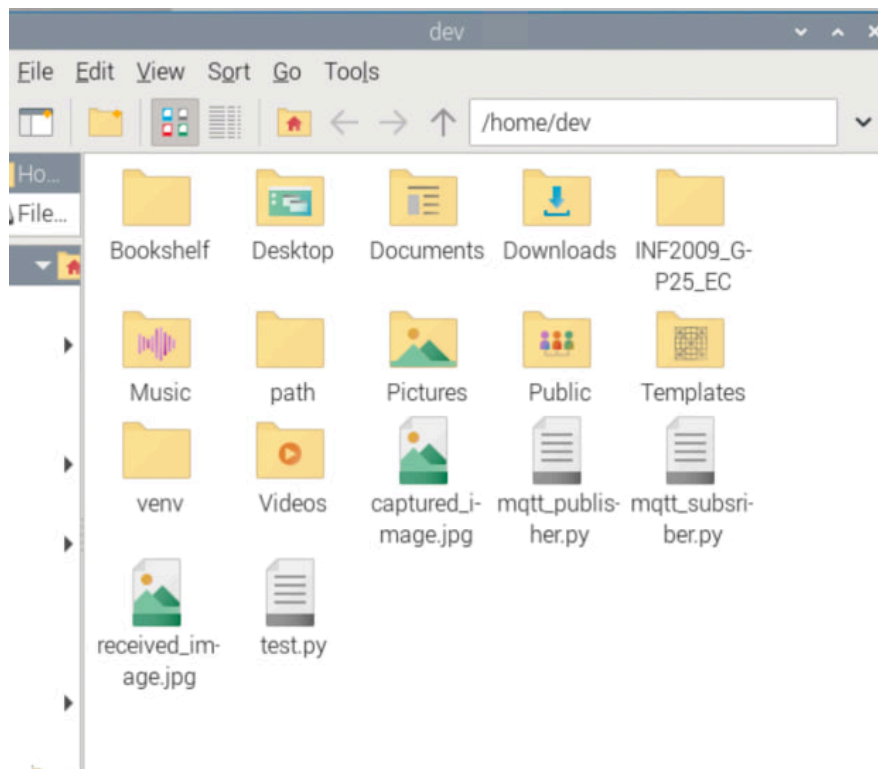
```
dev@ed001: ~  
File Edit Tabs Help  
Location: /home/dev/venv/lib/python3.11/site-packages  
Requires:  
Required-by:  
(venv) dev@ed001:~ $ pip install paho-mqtt==1.6.1  
Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple  
Collecting paho-mqtt==1.6.1  
  Downloading https://www.piwheels.org/simple/paho-mqtt/paho_mqtt-1.6.1-py3-none-any.whl (75 kB)  
    ━━━━━━━━━━━━━━━━━━━━ 75.6/75.6 kB 258.4 kB/s eta 0:00:00  
Installing collected packages: paho-mqtt  
Attempting uninstall: paho-mqtt  
Found existing installation: paho-mqtt 2.1.0  
Uninstalling paho-mqtt-2.1.0:  
  Successfully uninstalled paho-mqtt-2.1.0  
Successfully installed paho-mqtt-1.6.1  
(venv) dev@ed001:~ $ python mqtt_subscriber.py  
Received message 'Hello, MQTT!' on topic 'test/topic'  
Received message 'Hello, MQTT!' on topic 'test/topic'  
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File Edit Tabs Help  
^CTraceback (most recent call last):  
  File "/home/dev/mqtt_publisher.py", line 9, in <module>  
    time.sleep(5)  
KeyboardInterrupt  
(venv) dev@ed001:~ $ python mqtt_publisher.py  
^CTraceback (most recent call last):  
  File "/home/dev/mqtt_publisher.py", line 9, in <module>  
    time.sleep(5)  
KeyboardInterrupt  
(venv) dev@ed001:~ $ python mqtt_publisher.py  
^CTraceback (most recent call last):  
  File "/home/dev/mqtt_publisher.py", line 9, in <module>  
    time.sleep(5)  
KeyboardInterrupt  
(venv) dev@ed001:~ $ python mqtt_publisher.py  
^CTraceback (most recent call last):  
  File "/home/dev/mqtt_publisher.py", line 9, in <module>  
    time.sleep(5)  
KeyboardInterrupt  
(venv) dev@ed001:~ $
```

Lab Assignment:

Subscriber and Publisher

```
dev@ed001:~  
File Edit Tabs Help  
756, in loop_forever  
    rc = self._loop(timeout)  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
File "/home/dev/venv/lib/python3.11/site-packages/paho/mqtt/client.py", line 1  
150, in _loop  
    socklist = select.select(rlist, wlist, [], timeout)  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
KeyboardInterrupt  
  
(venv) dev@ed001:~ S ^C  
(venv) dev@ed001:~ S python mqtt_subscriber.py  
Listening for image requests on 'image/request'...  
Received request on topic 'image/request': capture  
Warming up camera...  
Image saved as captured_image.jpg  
Image published to topic 'image/response'  
Received request on topic 'image/request': capture  
Warming up camera...  
Image saved as captured_image.jpg  
Image published to topic 'image/response'  
Received request on topic 'image/request': capture  
Warming up camera...  
Image saved as captured_image.jpg  
Image published to topic 'image/response'  
Received request on topic 'image/request': capture  
Warming up camera...  
Image saved as captured_image.jpg  
Image published to topic 'image/response'  
[  
File Edit Tabs Help  
Requesting an image by publishing to topic 'image/request'...  
Listening for images on topic 'image/response'...  
Received image data on topic 'image/response'  
Image saved as received_image.jpg  
^CTraceback (most recent call last):  
  File "/home/dev/mqtt_publisher.py", line 29, in <module>  
    client.loop_forever()  
  File "/home/dev/venv/lib/python3.11/site-packages/paho/mqtt/client.py", line 1  
756, in loop_forever  
    rc = self._loop(timeout)  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
  File "/home/dev/venv/lib/python3.11/site-packages/paho/mqtt/client.py", line 1  
150, in _loop  
    socklist = select.select(rlist, wlist, [], timeout)  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
KeyboardInterrupt  
  
(venv) dev@ed001:~ S ^C  
(venv) dev@ed001:~ S python mqtt_publisher.py  
Requesting an image by publishing to topic 'image/request'...  
Listening for images on topic 'image/response'...  
Received image data on topic 'image/response'  
Image saved as received_image.jpg  
[
```

Folder:



Received Image:

