

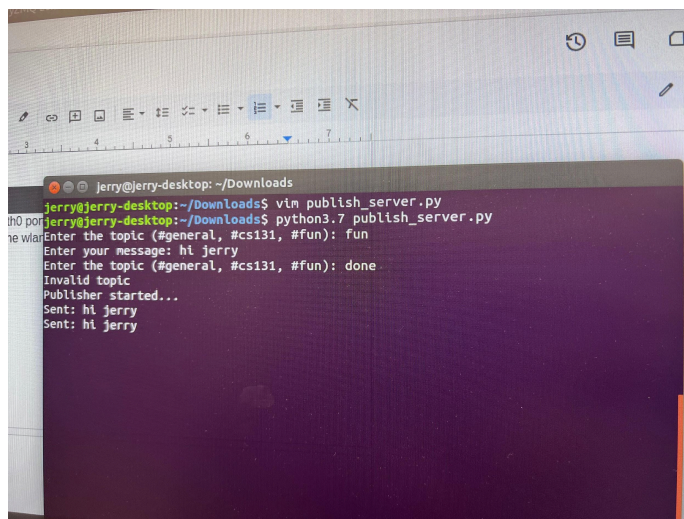
Part 1

Q1. The server is local because its being hosted locally on the edge device and not on the cloud. There are not an external networks being used and only the machines network. The difference between local and remote is that local runs with other networks/servers and only uses the devices own network, while a remote connection means other devices can connect to the network.

Q2. Because it loops back to the local machine allowing the device to communicate with itself without needed an external network.

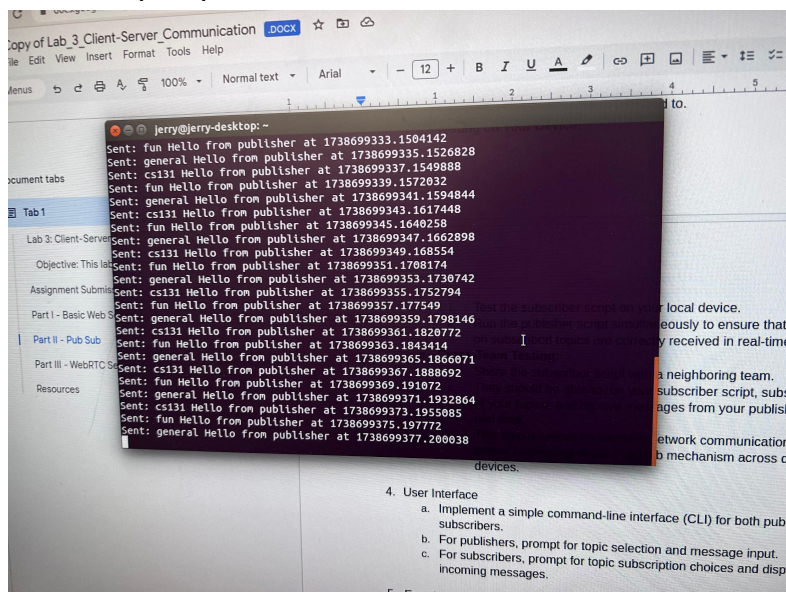
Part 2

Publisher (Nano)



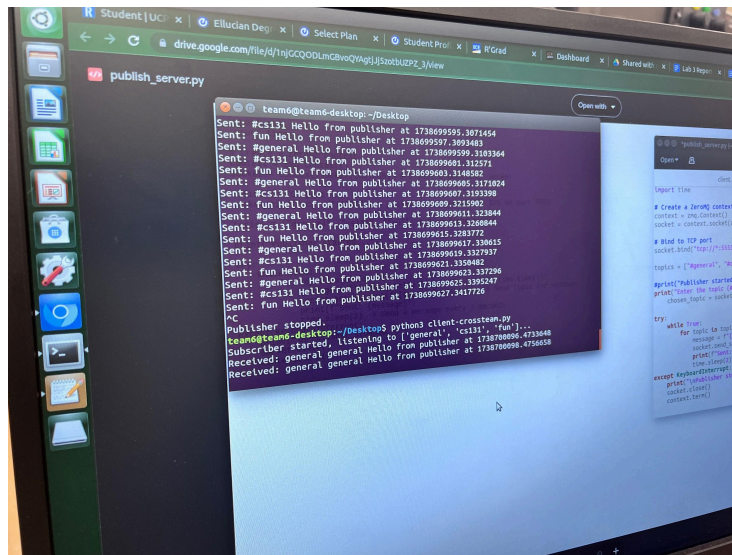
```
jerry@jerry-desktop: ~/Downloads
jerry@jerry-desktop:~/Downloads$ vin publish_server.py
jerry@jerry-desktop:~/Downloads$ python3.7 publish_server.py
Enter the topic (#general, #csi131, #fun): fun
Enter your message: hi jerry
Enter the topic (#general, #csi131, #fun): done
Invalid topic
Publisher started...
Sent: hi jerry
Sent: hi jerry
```

Receiver (Mac)



```
copy of Lab_3 Client-Server Communication
jerry@jerry-desktop: ~
Sent: fun Hello from publisher at 1738699333.1504142
Sent: general Hello from publisher at 1738699335.1526828
Sent: csi131 Hello from publisher at 1738699337.1549088
Sent: csi131 Hello from publisher at 1738699339.1572032
Sent: fun Hello from publisher at 1738699341.1594844
Sent: general Hello from publisher at 1738699343.1617448
Sent: csi131 Hello from publisher at 1738699345.1640258
Sent: fun Hello from publisher at 1738699347.1662898
Sent: general Hello from publisher at 1738699349.168554
Sent: csi131 Hello from publisher at 1738699351.1708174
Sent: fun Hello from publisher at 1738699353.1730742
Sent: csi131 Hello from publisher at 1738699355.1752794
Sent: fun Hello from publisher at 1738699357.177549
Sent: general Hello from publisher at 1738699359.1798146
Sent: csi131 Hello from publisher at 1738699361.1820772
Sent: fun Hello from publisher at 1738699363.1843414
Sent: general Hello from publisher at 1738699365.1866071
Sent: csi131 Hello from publisher at 1738699367.1888692
Sent: fun Hello from publisher at 1738699369.191072
Sent: general Hello from publisher at 1738699371.1932864
Sent: csi131 Hello from publisher at 1738699373.1955085
Sent: fun Hello from publisher at 1738699375.197772
Sent: general Hello from publisher at 1738699377.200038
```

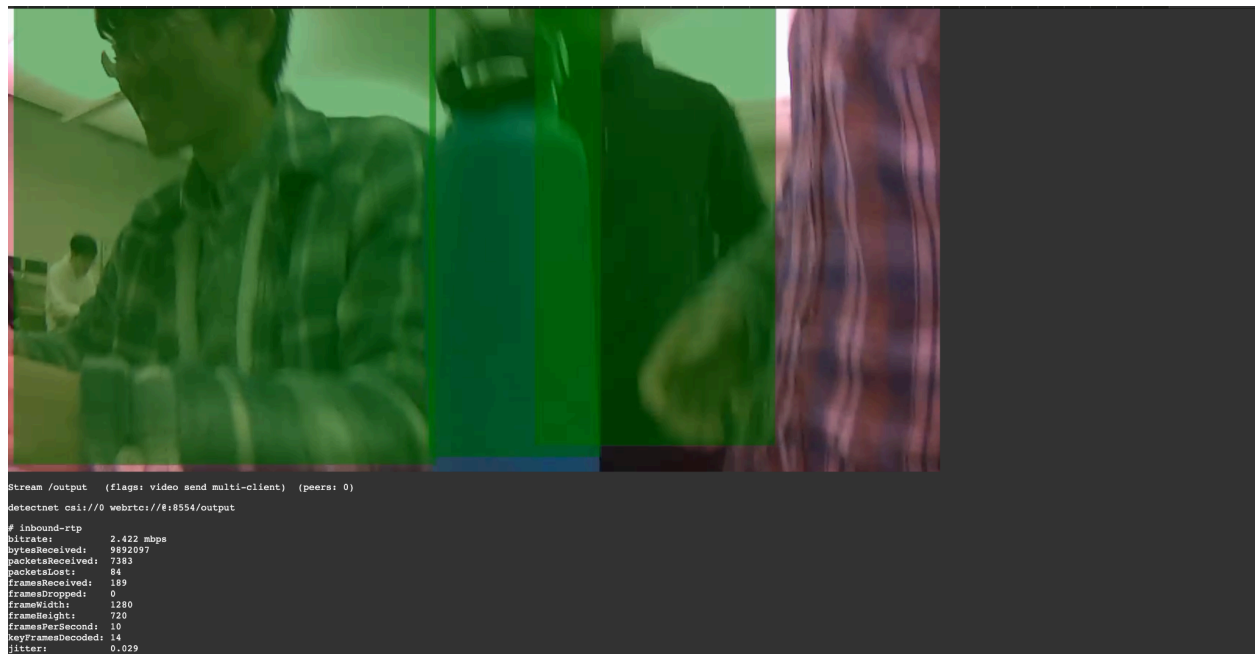
Other group



Part 3

Q3.1: What does bitrate represent in terms of video-streaming? How is it relevant here?

2.422 mbps is the bit rate. It represents the amount of data being streamed to my device from the host device. It's relevant here as it represents how stable or how much information is being transmitted per second.



Q3.2: How many packets were received and dropped? What does this statistic represent?

84 packets were dropped at this frame and 189 packets were received. This represents how much data was missed or failed to transmit to the destination.

Q3.3: Were you able to receive a stable framerate of 30 fps? Describe any possible latency that could affect this parameter.

No we did not. Mostlikely because of the high packet loss and unstable connection, a consistent 30 fps could not be received from the host on the destination device.