Lab 3

# Summary

This lab teaches us about transferring data via the UDP protocol. As we know, UDP does not wait for the connection to be established before sending data. This makes it faster to use UDP for large files like a video file. In this lab, we send a video via VLC media player from one IP and port to another IP address. The C code we write routes the packets for this video file from the source and destination. It also

We play around with the loss rate values to see the quality of the video when the delay is increased and decreased.

A screenshot of a computer

Description automatically generated

# Exercises

Exercise 1

Increasing the loss rate diminishes the quality of the received video. We can see a lot of pixelated frames within the video and a huge delay for it to start playing on the receiver end. Even when the loss rate is set to 1, we see a considerable delay. When it’s 0, the quality is much better, and the delay is minute.

Exercise 2

In case of a pre-existing local file that needs to be propagated within a local network, TCP would be a good choice since the average delay will be much less. But in the case of propagating a video from the internet or some far-off server, TCP would not be a good choice. This is because TCP works on the principle of handshaking and only starts propagating packets once the established connection is confirmed and the ACKs are sent back from the receiver to the sender. UDP does not wait for a confirmation of the established connection. This makes the delay less.