High Level View

I have used the dpkt library to parse the tcp data, which gives us a timestamp and a buffer.

There is a packet class in the code which is used for packet parsing from binary to a human readable format using from_bytes. The object created using this class has the information about the packet.

There are various functions used in the program. The index_after_threway_handshake function returns the index after the tcp handshake has taken place to analyze the packets after that. The Flow_Initializer function is used to manage the flows and create a list of flows (in this case 3) and segregate the packets belonging to each flow. The Print_First_Two_Transactions function prints the first two transactions for each flow. Throughput_Calculation function is used to calculate the throughput for each flow. The functions RTTCalculation and LossRate_Calculation are used to calculate the estimated RTT and the Loss rate respectively.