Lab Report-4(CS3205)

Hari Charan CS20B086

Observations on increasing the drop probability:
1)Increased Retransmission ratio: As the drop probability increases, the likelihood of packets being lost also increases. This leads to an increase in the number of retransmissions required to ensure that all packets are delivered successfully. This, in turn, increases the retransmission ratio.
2)Increased Average RTT: Increase in the number of retransmissions is required to ensure reliable delivery of packets. As a result, the RTT also increases, since each retransmitted packet adds to the overall time taken for the packet to reach the receiver.

Results:

For,
Packetlength 128, Max acknowledged packets 1000, port 12001, window size 5,max buffer size 10, packet generation rate 100, drop probability 0.5. The results are

```
PACKET_GEN_RATE 100
PACKET_LENGTH 128
Retransmission ratio 3.75
Average RTT: 18.957972526550293 ms
```

Packetlength 128, Max acknowledged packets 1000, port 12001, window size 5,max buffer size 10, packet generation rate 100, drop probability 0.0000000001. The results are

```
PACKET_GEN_RATE 100
PACKET_LENGTH 128
Retransmission ratio 1.0
Average RTT: 14.837969779968262 ms
```

Table:

	Random_drop prob=10^-8	Random_drop prob=10^-4
Packet length=128	Pkt_rate=100,n=1000,window size=5,maxbufsize=10, Retransmission ratio=1.001001,Average RTT=14.649ms	Pkt_rate=100,n=1000,window size=5,maxbufsize=10, Retransmission ratio=1,Average RTT=15.699ms
Packet length=1024	Pkt_rate=100,n=1000,window size=5,maxbufsize=10, Retransmission ratio=1,Average RTT=14.443ms	Pkt_rate=100,n=1000,window size=5,maxbufsize=10, Retransmission ratio=1,Average RTT=15.355ms