GBN REPORT

Implementing the Go Back N protocol using UDP.

→ As the Random Drop Probability increase from 10^-8 to 10^-4. Errors in the packets get increased hence more packets get dropped then the sender will have to retransmit those lost packets, leading to an increase in the Retransmission ratio. This is because the receiver will not acknowledge the packets that have been dropped, and the sender will assume that they have been lost and will retransmit them.

→ The increase in Retransmissions due to Dropped Packets and Drop probability will also increase the amount of traffic in the network, leading to congestion and an increase in the overall RTT. This is because the sender will have to wait longer for acknowledgments, and the retransmitted packets will also occupy the network resources for a longer period. Hence lead to Increase in Round Trip Time.

Table for Random Drop Probability == 10^-4

PACKET_LENGTH	RTT	RETRANSMISSION_RATIO
128 Bytes	0.442 ms	1.04235
1024 Bytes	0.532 ms	1.04389

Table for Random Drop Probability == 10^-8

PACKET_LENGTH	RTT	RETRANSMISSION_RATIO
128 Bytes	0.402 ms	1.00023
1024 Bytes	0.453 ms	1.00085