Report:
1– RDT 2.2 is enhanced version on RDT 2.1 with ACK and NACK response attached to every sending packet RDT 2.2 is implemented in RDT.py with loss rate of 0.3.

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SENDER:   Timeout: Resending packet with sequence number 0
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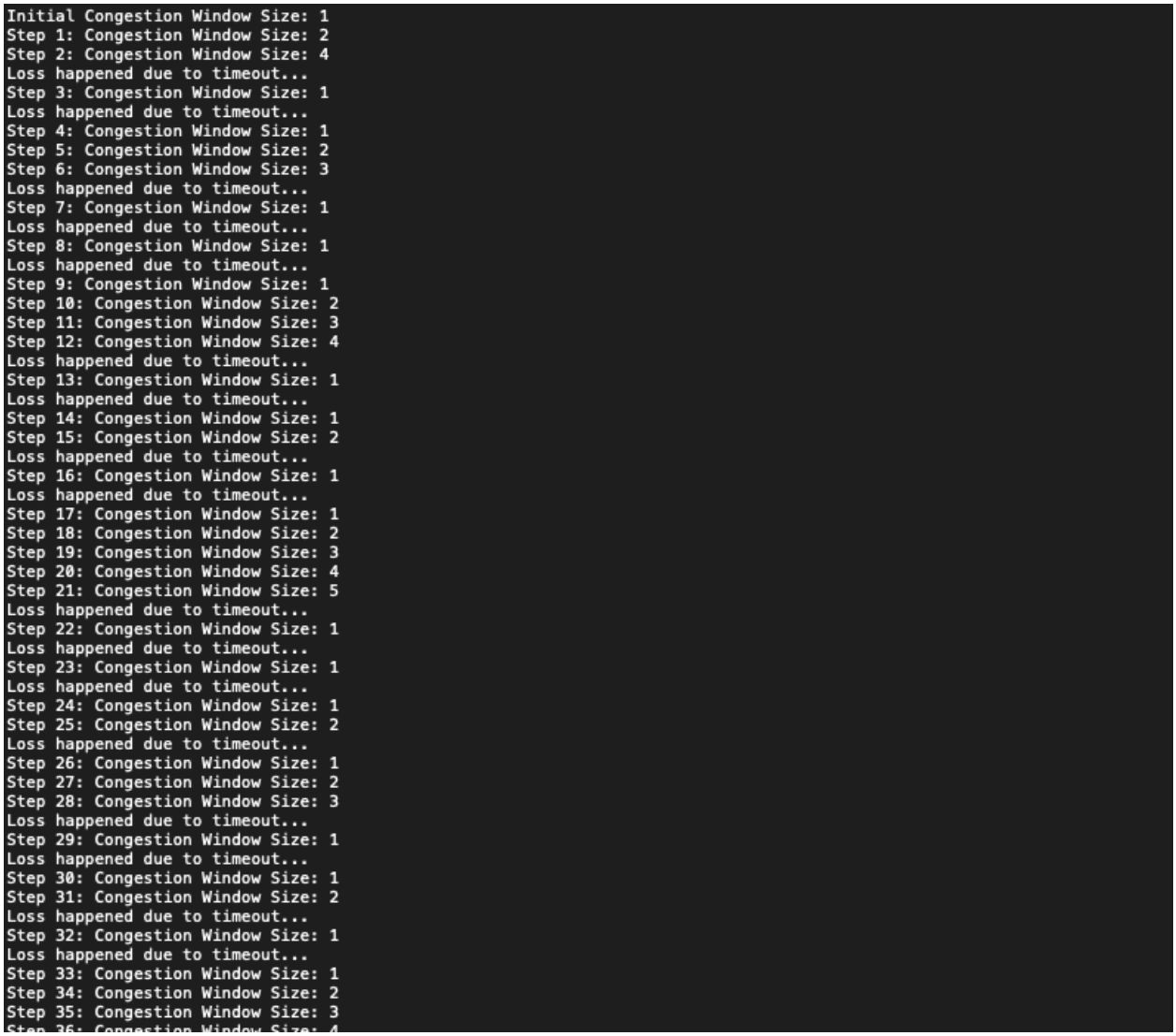
SENDER:   Timeout: Resending packet with sequence number 0
RECIERVER:   Received ('Data_1', 'Content_1') with sequence number 0
RECIEVER:   Sending ACK0
RECIERVER:   Received ('Data_2', 'Content_2') with sequence number 1
RECIEVER:   Sending ACK1
RECIERVER:   Received ('Data_3', 'Content_3') with sequence number 0
RECIEVER:   Sending ACK0
RECIERVER:   Received ('Data_4', 'Content_4') with sequence number 1
RECIEVER:   Sending ACK1
SENDER:   Timeout: Resending packet with sequence number 0
SENDER:   Timeout: Resending packet with sequence number 0
RECIERVER:   Received ('Data_5', 'Content_5') with sequence number 0
RECIEVER:   Sending ACK0
RECIERVER:   Received ('Data_6', 'Content_6') with sequence number 1
RECIEVER:   Sending ACK1
RECIERVER:   Received ('Data_7', 'Content_7') with sequence number 0
RECIEVER:   Sending ACK0
RECIERVER:   Received ('Data_8', 'Content_8') with sequence number 1
RECIEVER:   Sending ACK1
RECIERVER:   Received ('Data_9', 'Content_9') with sequence number 0
RECIEVER:   Sending ACK0
RECIERVER:   Received ('Data_10', 'Content_10') with sequence number 1
RECIEVER:   Sending ACK1
```

As we can see there is timeout detected, sender transmit again with same sequence number until it is received.

2– Congestion Control AIMD has 2 phases start phase and  congestion avoidance phase, which linearly increases the congestion window size one by one and upon incurring loss the congestion window is halved. The entire log is in abc.txt, you can refer for every program.



3– Link State Routing is nothing but adaptation of Dijkstra Algorithm which finds the shortest path between source and destination. This is achieved by being greedy in nature. Picking path with least resistance

Proof of the shortest path is given in the folder