- 10 messages sent, a loss probability of 0.0, and a corruption probability of 0.0, and a trace level of **1**

Enter the number of messages to simulate: 10

Enter packet loss probability [enter 0.0 for no loss]: 0.0

Enter packet corruption probability [0.0 for no corruption]: 0.0

Enter average time between messages from sender's layer5 [> 0.0]: 1000

Enter TRACE: 1

A received aaaaaaaaaaaaaaaaaa from application layer **#the sender A received data from the application layer that says "aaaaaaaaaaaaaaaaaa"**

B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload: aaaaaaaaaaaaaaaaaa) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**

A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**

A received a valid ACK 0 **#The response packet sent from B to A included a valid acknowledgment that B received the correct information from A**

A received bbbbbbbbbbbbbbbbbb from application layer

B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload: bbbbbbbbbbbbbbbbbb) from network layer layer

A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 1

A received cccccccccccccccccc from application layer

B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload: cccccccccccccccccc) from network layer layer

A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 0

A received ddddddddddddddddddd from application layer

B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload: ddddddddddddddddddd) from network layer layer

A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 1

A received eeeeeeeeeeeeeeeeee from application layer

B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload: eeeeeeeeeeeeeeeeee) from network layer layer

A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 0

A received ffffffffffffffffff from application layer

B received a packet (SEQ: 1, ACK: 0, Checksum: 1939, Payload: ffffffffffffffffff) from network layer layer

A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 1

A received gggggggggggggggggg from application layer

B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload: gggggggggggggggggg) from network layer layer

A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 0

A received hhhhhhhhhhhhhhhhhh from application layer

B received a packet (SEQ: 1, ACK: 0, Checksum: 1977, Payload: hhhhhhhhhhhhhhhhhh) from network layer layer

A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 1

A received iiiiiiiiiiiiiiii from application layer

B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload: iiiiiiiiiiiiiiii) from network layer layer

A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer

A received a valid ACK 0

A received jjjjjjjjjjjjjjjj from application layer

In the highlight, A sent a packet over the network to B, who received a correct packet, and sent a valid acknowledgment back to A.

- 10 messages sent, a loss probability of 0.25, and a corruption probability of 0.0, and a trace level of **1**

```
Enter the number of messages to simulate: 10
Enter packet loss probability [enter 0.0 for no loss]: .25
Enter packet corruption probability [0.0 for no corruption]: 0.0
Enter average time between messages from sender's layer5 [ > 0.0]:1000
Enter TRACE:1
A received aaaaaaaaaaaaaaaaaa from application layer #the sender A received
data from the application layer that says "aaaaaaaaaaaaaaaaaa"
TOLAYER3: PACKET BEING LOST #the simulator is dropping the packet trying to
be sent from A to B
A experienced a timer interrupt #the timer on A side expires
```

Resending packet from A -> B **#packet is being resent because of the timer interrupt**
TOLAYER3: PACKET BEING LOST **#this resent packet from A to B is also lost**
A experienced a timer interrupt **#the timer on A side expires**
Resending packet from A -> B **#packet is being resent because of the timer interrupt**
B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload: aaaaaaaaaaaaaaaaaaa) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**

A received a valid ACK 0 **#The response packet sent from B to A included a valid acknowledgment that B received the correct information from A**
A received bbbbbbbbbbbbbbbbbbb from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload: bbbbbbbbbbbbbbbbbbb) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 1
A received ccccccccccccccccccc from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload: ccccccccccccccccccc) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 0
A received ddddddddddddddddddd from application layer **# the sender A received data from the application layer that says "ddddddddddddddddddd"**
B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload: ddddddddddddddddddd) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
TOLAYER3: PACKET BEING LOST **#the simulator is dropping the packet trying to be sent from B to A, including B's Ack message**
A experienced a timer interrupt **#the timer on A side expires**
Resending packet from A -> B **#packet is being resent because of the timer interrupt**
B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload: ddddddddddddddddddd) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**
A received a valid ACK 1 **#The response packet sent from B to A included a valid acknowledgment that B received the correct information from A**
A received eeeeeeeeeeeeeeeeeee from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload: eeeeeeeeeeeeeeeeeee) from network layer layer
TOLAYER3: PACKET BEING LOST

```
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload:
eeeeeeeeeeeeeeeeee) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received ffffffffffffffffff from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1939, Payload:
ffffffffffffffffff) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
A received gggggggggggggggggggg from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload:
gggggggggggggggggggg) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received hhhhhhhhhhhhhhhhhh from application layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 1, ACK: 0, Checksum: 1977, Payload:
hhhhhhhhhhhhhhhhhh) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
A received iiiiiiiiiiiiiiiiii from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received jjjjjjjjjjjjjjjjjj from application layer
```

In the first highlight, the packet is lost twice on way from A to B and the timer expires because a valid ack was not received in time, so the packet was then resent and went to B, who returned a valid ack.
In the second highlight, the packet being sent from B, with the acknowledgment that it received the packet from is, is lost causing A not to receive a valid ack message in time, and then having to resend the initial packet from A to B.

- 10 messages sent, a loss probability of 0.0, and a corruption probability of 0.25, and a trace level of **1**

```
Enter the number of messages to simulate: 10
Enter packet loss probability [enter 0.0 for no loss]:0.0
Enter packet corruption probability [0.0 for no corruption]:.25
Enter average time between messages from sender's layer5 [ > 0.0]:1000
Enter TRACE:1
A received aaaaaaaaaaaaaaaaaa from application layer # the sender A received
data from the application layer that says "aaaaaaaaaaaaaaaaaa"
```

B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload: aaaaaaaaaaaaaaaaaa) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
TOLAYER3: PACKET BEING CORRUPTED **#The packet being sent from B to A is being corrupted**
CORRUPTING PACKET DATA **#The payload info is being corrupted**
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: Z) from network layer layer **#A received a response packet back from B**
ERROR: A received a corrupt packet! **#The packet A received has been corrupted**
A experienced a timer interrupt **#the timer on A side expires**
Resending packet from A -> B **#packet is being resent because of the timer interrupt**
TOLAYER3: PACKET BEING CORRUPTED **#The packet being sent from A to B is being corrupted**
CORRUPTING PACKET DATA **#the payload info is being corrupted**
B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload: aaaaaaaaaaaaaaaaaaZ) from network layer layer **#The receiver B received a packet sent from A with the expected Seq#**
ERROR: B received a corrupt packet! **#The packet B received has been corrupted**
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**
ERROR: A received a packet with the wrong ACK number! **#The packet A received from B contained an incorrect ACK number, meaning somewhere between A and B the packet was corrupted**
A experienced a timer interrupt **#the timer on A side expires**
Resending packet from A -> B **#packet is being resent because of the timer interrupt**
B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload: aaaaaaaaaaaaaaaaaa) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**
A received a valid ACK 0 **#The response packet sent from B to A included a valid acknowledgment that B received the correct information from A**
A received bbbbbbbbbbbbbbbbbb from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload: bbbbbbbbbbbbbbbbbb) from network layer layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: Z) from network layer layer
ERROR: A received a corrupt packet!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload: bbbbbbbbbbbbbbbbbb) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 1
A received ccccccccccccccccc from application layer

```
B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload:
ccccccccccccccccccc) from network layer layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a corrupt packet!
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload:
ccccccccccccccccccZ) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload:
ccccccccccccccccccc) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received ddddddddddddddddddd from application layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET SEGMENT NUMBER
B received a packet (SEQ: 999999, ACK: 0, Checksum: 1901, Payload:
ddddddddddddddddddd) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET ACK NUMBER
A received a packet (SEQ: , ACK: 999999, Checksum: 0, Payload: ) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload:
ddddddddddddddddddZ) from network layer layer
ERROR: B received a corrupt packet!
A received a packet (SEQ: , ACK: 0, Checksum: 0, Payload: ) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload:
ddddddddddddddddddd) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
A received eeeeeeeeeeeeeeeeeee from application layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
```

```
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload:
eeeeeeeeeeeeeeeeeeeZ) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload:
eeeeeeeeeeeeeeeeeeeZ) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload:
eeeeeeeeeeeeeeeeeee) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received ffffffffffffffffff from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1939, Payload:
ffffffffffffffffff) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
A received ggggggggggggggggggg from application layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload:
ggggggggggggggggggZ) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload:
ggggggggggggggggggg) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received hhhhhhhhhhhhhhhhhhh from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1977, Payload:
hhhhhhhhhhhhhhhhhhh) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
```

```
A received iiiiiiiiiiiiiiiiii from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received jjjjjjjjjjjjjjjjjj from application layer
```

In the highlight, A received a message from the application layer, A sent a packet to B, B received the correct packet, and tried to sent a packet back to A with acknowledgement, the packet from B to A was corrupted, causing A not to receive the correct packet from B, and therefore not stopping the timer, so A experiences a timer interrupt and then tries to resend the packet to B, this packet from A to B is corrupted and B received a corrupted packet, therefore A receives an invalid Ack number, causing another timer interrupt where A resends the packet to B, this time B receives a correct packet, and sends a ack to A and A receives a valid ack message from B

- 10 messages sent, a loss probability of 0.25, and a corruption probability of 0.25, and a trace level of **1**

```
Enter the number of messages to simulate:10
Enter  packet loss probability [enter 0.0 for no loss]:.25
Enter packet corruption probability [0.0 for no corruption]:.25
Enter average time between messages from sender's layer5 [ > 0.0]:1000
Enter TRACE:1
A received aaaaaaaaaaaaaaaaaa from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload:
aaaaaaaaaaaaaaaaaa) from network layer layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1843, Payload:
aaaaaaaaaaaaaaaaaa) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received bbbbbbbbbbbbbbbbbb from application layer # the sender A received
data from the application layer that says "bbbbbbbbbbbbbbbbb"
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload:
bbbbbbbbbbbbbbbbbb) from network layer layer #the receiver B received a
packet with valid information aka not corrupt info sent from A, including the
expected Seq#, the checksum is equal to the one sent in the packet from A, we
know this because there is no error resulting from an incorrect checksum, and
the checksum calculated in B == the one calculated in A
TOLAYER3: PACKET BEING LOST #the simulator is dropping the packet trying to
be sent from B to A, including B's Ack message
A experienced a timer interrupt #the timer on A side expires
Resending packet from A -> B #packet is being resent because of the timer
interrupt
TOLAYER3: PACKET BEING CORRUPTED #The packet being sent from A to B is being
corrupted
CORRUPTING PACKET DATA #the payload info is being corrupted
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload:
bbbbbbbbbbbbbbbbbbZ) from network layer layer #The receiver B received a
packet sent from A with the expected Seq#
ERROR: B received a corrupt packet! #The packet B received has been corrupted
```

A received a packet (SEQ: , ACK: 0, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**
ERROR: A received a packet with the wrong ACK number! **#The packet A received from B contained an incorrect ACK number, meaning somewhere between A and B the packet was corrupted**
A experienced a timer interrupt**#the timer on A side expires**
Resending packet from A -> B **#packet is being resent because of the timer interrupt**
B received a packet (SEQ: 1, ACK: 0, Checksum: 1863, Payload: bbbbbbbbbbbbbbbbbb) from network layer layer **#the receiver B received a packet with valid information aka not corrupt info sent from A, including the expected Seq#, the checksum is equal to the one sent in the packet from A, we know this because there is no error resulting from an incorrect checksum, and the checksum calculated in B == the one calculated in A**
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer **#A received a response packet back from B**
A received a valid ACK 1 **#The response packet sent from B to A included a valid acknowledgment that B received the correct information from A**
A received ccccccccccccccccccc from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1881, Payload: ccccccccccccccccccc) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 0
A received ddddddddddddddddddddd from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1901, Payload: ddddddddddddddddddddd) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 1
A received eeeeeeeeeeeeeeeeeee from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload: eeeeeeeeeeeeeeeeeee) from network layer layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: Z) from network layer layer
ERROR: A received a corrupt packet!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1919, Payload: eeeeeeeeeeeeeeeeeee) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 0
A received fffffffffffffffffff from application layer
B received a packet (SEQ: 1, ACK: 0, Checksum: 1939, Payload: fffffffffffffffff) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload:) from network layer layer
A received a valid ACK 1
A received ggggggggggggggggggg from application layer
B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload: ggggggggggggggggggg) from network layer layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt

```
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1957, Payload:
ggggggggggggggggggg) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received hhhhhhhhhhhhhhhhhh from application layer
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
B received a packet (SEQ: 1, ACK: 0, Checksum: 1977, Payload:
hhhhhhhhhhhhhhhhhhhZ) from network layer layer
ERROR: B received a corrupt packet!
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET DATA
A received a packet (SEQ: , ACK: 0, Checksum: 0, Payload: Z) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 1, ACK: 0, Checksum: 1977, Payload:
hhhhhhhhhhhhhhhhhhh) from network layer layer
A received a packet (SEQ: 1, ACK: 1, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 1
A received iiiiiiiiiiiiiiiiii from application layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING CORRUPTED
CORRUPTING PACKET SEGMENT NUMBER
B received a packet (SEQ: 999999, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
ERROR: B received a corrupt packet!
A received a packet (SEQ: , ACK: 1, Checksum: 0, Payload: ) from network
layer layer
ERROR: A received a packet with the wrong ACK number!
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING LOST
```

```
A experienced a timer interrupt
Resending packet from A -> B
TOLAYER3: PACKET BEING LOST
A experienced a timer interrupt
Resending packet from A -> B
B received a packet (SEQ: 0, ACK: 0, Checksum: 1995, Payload:
iiiiiiiiiiiiiiiiii) from network layer layer
A received a packet (SEQ: 0, ACK: 0, Checksum: 0, Payload: ) from network
layer layer
A received a valid ACK 0
A received jjjjjjjjjjjjjjjjjj from application layer
TOLAYER3: PACKET BEING LOST
```

In the highlight, A receives a message from the application layer, A then sends a packet over to B, B tries to send a Ack message back to A when the packet is lost, A does not receive a valid ack and a timer interrupt is triggered, A tries to resend the packet to B, but the packet from A to B gets corrupted, B then receives a corrupted packet, and sends an incorrect ack to A, A then expereicnes another timer interrupt and resends the packet back to B, B receives a correct packet, sends an Ack to A, and A receives a valid ack response from B