

Figure 1 – Sample outputs of the client/server program of Part 1 in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part1-code
atctam@atctam-Ubuntu-PC:~/Project/Part1-code$ ./tserver localhost
PACKET_LOSS_RATE = 0.00, PACKET_ERR_RATE = 0.00
Received client request: file size = 9205
Open file Store/slidingW.png for writing successfully
Sent one message of size 4
Start receiving the file . . .
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 1000 bytes
Received a message of size 205 bytes
Complete the file transfer.
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part1-code$
```

```
atctam@atctam-Ubuntu-PC: ~/Project/Part1-code
atctam@atctam-Ubuntu-PC:~/Project/Part1-code$ ./tclient localhost slidingW.png
PACKET_LOSS_RATE = 0.00, PACKET_ERR_RATE = 0.00
Open file successfully
File bytes are 9205
rdt_send: Sent one message of size 4
rdt_send: Sent one message of size 12
Receive server response
Start the file transfer . . .
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 1000
rdt_send: Sent one message of size 205
Complete the file transfer.
Total elapse time: 0.011 s      Throughput: 832.43 KB/s
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part1-code$
```

Figure 2 – Sample outputs of the client/server program of Part 2 (with PACKET_LOSS_RATE and PACKET_ERR_RATE set to 0.1) in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part2-code
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$ sh run-server.sh 0.1 0.1 localhost
export PACKET_LOSS_RATE=0.1
export PACKET_ERR_RATE=0.1
PACKET_LOSS_RATE = 0.10, PACKET_ERR_RATE = 0.10
rdt_rcv: Got an expected packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
Received client request: file size = 9205
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Got an expected packet
Open file Store/slidingW.png for writing successfully
rdt_send: Sent one message of size 10
rdt_send: Received the ACK
Start receiving the file . . .
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
Received a message of size 1000 bytes
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 205 bytes
Complete the file transfer.
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$
```

```
atctam@atctam-Ubuntu-PC: ~/Project/Part2-code
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$ sh run-client.sh 0.1 0.1 localhost
slidingW.png
export PACKET_LOSS_RATE=0.1
export PACKET_ERR_RATE=0.1
PACKET_LOSS_RATE = 0.10, PACKET_ERR_RATE = 0.10
Open file successfully
File bytes are 9205
rdt_send: Sent one message of size 10
rdt_send: Received a corrupted packet: Type = ACK, Length = 4
rdt_send: Drop the packet
rdt_send: Timeout!! Retransmit the packet (seq# 0) again
rdt_send: Received the ACK
rdt_send: Sent one message of size 18
rdt_send: Received the ACK
rdt_rcv: Got an expected packet
Receive server response
Start the file transfer . . .
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received a corrupted packet: Type = DATA, Length = 4
rdt_send: Drop the packet
rdt_send: Timeout!! Retransmit the packet (seq# 0) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 0) again
rdt_send: Timeout!! Retransmit the packet (seq# 0) again
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 211
rdt_send: Received the ACK
Complete the file transfer.
Total elapse time: 0.162 s      Throughput: 56.81 KB/s
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$
```

Figure 3 – Sample outputs of the client/server program of Part 2 (with PACKET_LOSS_RATE and PACKET_ERR_RATE set to **0.3**) in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part2-code
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
Received a message of size 1000 bytes
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_rcv: Received a retransmission DATA packet from peer!!
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Got an expected packet
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
Received a message of size 205 bytes
Complete the file transfer.
rdt_close: Received a retransmission DATA packet from peer!!
rdt_close: Retransmit the ACK packet
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$
```

```
atctam@atctam-Ubuntu-PC: ~/Project/Part2-code
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Received the ACK
rdt_send: Sent one message of size 1006
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
rdt_send: Received a corrupted packet: Type = ACK, Length = 4
rdt_send: Drop the packet
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
rdt_send: Received a corrupted packet: Type = DATA, Length = 4
rdt_send: Drop the packet
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Received a corrupted packet: Type = DATA, Length = 4
rdt_send: Drop the packet
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
rdt_send: Received the ACK
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size 1006
rdt_send: Timeout!! Retransmit the packet (seq# 0) again
rdt_send: Received the ACK
rdt_send: Sent one message of size 211
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Timeout!! Retransmit the packet (seq# 1) again
rdt_send: Received the ACK
Complete the file transfer.
Total elapse time: 3.570 s      Throughput: 2.58 KB/s
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part2-code$
```


Figure 4 – Sample outputs of the client/server program of Part 3 (with W set to 5 and PACKET_LOSS_RATE and PACKET_ERR_RATE set to 0.0) in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$ sh run-server.sh 0.0 0.0 localhost

export PACKET_LOSS_RATE=0.0
export PACKET_ERR_RATE=0.0
PACKET_LOSS_RATE = 0.00, PACKET_ERR_RATE = 0.00
rdt_rcv: Got an expected packet - seqNo:0
Received client request: file size = 9205
rdt_rcv: Got an expected packet - seqNo:1
Open file Store/slidingW.png for writing successfully
rdt_snd: Sent one message of size:10 seqNo:0
rdt_snd: Received the ACK:0 (0-0)
Start receiving the file . . .
rdt_rcv: Got an expected packet - seqNo:2
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:3
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:4
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:5
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:6
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:7
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:8
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:9
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:10
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:11
Received a message of size 205 bytes
Complete the file transfer.
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$
```

```
atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$ sh run-client.sh 0.0 0.0 localhost
slidingW.png
export PACKET_LOSS_RATE=0.0
export PACKET_ERR_RATE=0.0
PACKET_LOSS_RATE = 0.00, PACKET_ERR_RATE = 0.00
Open file successfully
File bytes are 9205
rdt_send: Sent one message of size:10 seqNo:0
rdt_send: Received the ACK:0 (0-0)
rdt_send: Sent one message of size:18 seqNo:1
rdt_send: Received the ACK:1 (1-1)
rdt_rcv: Got an expected packet - seqNo:0
Receive server response
Start the file transfer . . .
rdt_send: Sent one message of size:1006 seqNo:2
rdt_send: Sent one message of size:1006 seqNo:3
rdt_send: Sent one message of size:1006 seqNo:4
rdt_send: Sent one message of size:1006 seqNo:5
rdt_send: Sent one message of size:1006 seqNo:6
rdt_send: Received the ACK:2 (2-6)
rdt_send: Received the ACK:3 (2-6)
rdt_send: Received the ACK:4 (2-6)
rdt_send: Received the ACK:5 (2-6)
rdt_send: Received the ACK:6 (2-6)
rdt_send: Sent one message of size:1006 seqNo:7
rdt_send: Sent one message of size:1006 seqNo:8
rdt_send: Sent one message of size:1006 seqNo:9
rdt_send: Sent one message of size:1006 seqNo:10
rdt_send: Sent one message of size:211 seqNo:11
rdt_send: Received the ACK:7 (7-11)
rdt_send: Received the ACK:8 (7-11)
rdt_send: Received the ACK:9 (7-11)
rdt_send: Received the ACK:10 (7-11)
rdt_send: Received the ACK:11 (7-11)
Complete the file transfer.
Total elapse time: 0.002 s      Throughtput: 3817.92 KB/s
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$
```

Figure 5 – Sample outputs of the client/server program of Part 3 (with W set to 5 and PACKET_LOSS_RATE and PACKET_ERR_RATE set to 0.1) in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$ sh run-server.sh 0.1 0.1 localhost
export PACKET_LOSS_RATE=0.1
export PACKET_ERR_RATE=0.1
PACKET_LOSS_RATE = 0.10, PACKET_ERR_RATE = 0.10
rdt_rcv: Got an expected packet - seqNo:0
Received client request: file size = 9205
rdt_rcv: Got an expected packet - seqNo:1
Open file Store/slidingW.png for writing successfully
rdt_snd: Sent one message of size:10 seqNo:0
rdt_snd: Received the ACK:0 (0-0)
Start receiving the file . . .
rdt_rcv: Got an expected packet - seqNo:2
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:3
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:4
Received a message of size 1000 bytes
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Got an expected packet - seqNo:5
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:6
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:7
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:8
Received a message of size 1000 bytes
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received out-of-order DATA packet - seqNo:10 (expected:9)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 211
rdt_rcv: Drop the packet
rdt_rcv: Got an expected packet - seqNo:9
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:10
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:11
Received a message of size 205 bytes
Complete the file transfer.
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$
```



```
atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$ sh run-client.sh 0.1 0.1 localhost
slidingW.png
export PACKET_LOSS_RATE=0.1
export PACKET_ERR_RATE=0.1
PACKET_LOSS_RATE = 0.10, PACKET_ERR_RATE = 0.10
Open file successfully
File bytes are 9205
rdt_send: Sent one message of size:10 seqNo:0
rdt_send: Received the ACK:0 (0-0)
rdt_send: Sent one message of size:18 seqNo:1
rdt_send: Received the ACK:1 (1-1)
rdt_rcv: Got an expected packet - seqNo:0
Receive server response
Start the file transfer . . .
rdt_send: Sent one message of size:1006 seqNo:2
rdt_send: Sent one message of size:1006 seqNo:3
rdt_send: Sent one message of size:1006 seqNo:4
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size:1006 seqNo:5
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_send: Sent one message of size:1006 seqNo:6
rdt_send: Received the ACK:2 (2-6)
rdt_send: Received the ACK:3 (2-6)
rdt_send: Received the ACK:4 (2-6)
rdt_send: Timeout!! Retransmit the packet(s): 5 6
rdt_send: Received the ACK:5 (2-6)
rdt_send: Received the ACK:6 (2-6)
rdt_send: Sent one message of size:1006 seqNo:7
rdt_send: Sent one message of size:1006 seqNo:8
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size:1006 seqNo:9
rdt_send: Sent one message of size:1006 seqNo:10
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size:211 seqNo:11
rdt_send: Received the ACK:7 (7-11)
rdt_send: Received the ACK:8 (7-11)
rdt_send: Received the ACK:8 (7-11)
rdt_send: Timeout!! Retransmit the packet(s): 9 10 11
rdt_send: Received the ACK:9 (7-11)
rdt_send: Received the ACK:10 (7-11)
rdt_send: Received the ACK:11 (7-11)
Complete the file transfer.
Total elapse time: 0.103 s      Throughput: 89.14 KB/s
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$
```

Figure 6 – Sample outputs of the client/server program of Part 3 (with W set to **5** and PACKET_LOSS_RATE and PACKET_ERR_RATE set to **0.3**) in transferring a small file.

```
atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received out-of-order DATA packet - seqNo:9 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Received out-of-order DATA packet - seqNo:10 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_rcv: Received out-of-order DATA packet - seqNo:11 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Received out-of-order DATA packet - seqNo:8 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_rcv: Received out-of-order DATA packet - seqNo:9 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet lost in unreliable layer!!!!!!
rdt_rcv: Received out-of-order DATA packet - seqNo:10 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 211
rdt_rcv: Drop the packet
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received out-of-order DATA packet - seqNo:9 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 1006
rdt_rcv: Drop the packet
rdt_rcv: Received out-of-order DATA packet - seqNo:11 (expected:7)
rdt_rcv: Drop the packet
rdt_rcv: Retransmit the ACK packet
rdt_rcv: Got an expected packet - seqNo:7
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:8
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:9
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
Received a message of size 1000 bytes
rdt_rcv: Got an expected packet - seqNo:10
Received a message of size 1000 bytes
rdt_rcv: Received a corrupted packet: Type = DATA, Length = 211
rdt_rcv: Drop the packet
rdt_rcv: Got an expected packet - seqNo:11
Received a message of size 205 bytes
Complete the file transfer.
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Server program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$
```

```

atctam@atctam-Ubuntu-PC: ~/Project/Part3-code
rdt_send: Received the ACK:2 (2-6)
rdt_send: Timeout!! Retransmit the packet(s): WARNING: udt_send: Packet lost in
unreliable layer!!!!!!
3 WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
4 5 WARNING: udt_send: Packet lost in unreliable layer!!!!!!
6
rdt_send: Received the ACK:2 (2-6)
rdt_send: Timeout!! Retransmit the packet(s): 3 4 5 6
rdt_send: Received the ACK:3 (2-6)
rdt_send: Received the ACK:5 (2-6)
rdt_send: Received the ACK:6 (2-6)
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size:1006 seqNo:7
WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
rdt_send: Sent one message of size:1006 seqNo:8
rdt_send: Sent one message of size:1006 seqNo:9
rdt_send: Sent one message of size:1006 seqNo:10
rdt_send: Sent one message of size:211 seqNo:11
rdt_send: Received a wrong ACK packet
rdt_send: Received a corrupted packet: Type = ACK, Length = 4
rdt_send: Drop the packet
rdt_send: Received a wrong ACK packet
rdt_send: Timeout!! Retransmit the packet(s): WARNING: udt_send: Packet lost in
unreliable layer!!!!!!
7 8 9 10 WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
11
rdt_send: Received a wrong ACK packet
rdt_send: Timeout!! Retransmit the packet(s): WARNING: udt_send: Packet corrupte
d in unreliable layer!!!!!!
7 WARNING: udt_send: Packet lost in unreliable layer!!!!!!
8 9 WARNING: udt_send: Packet corrupted in unreliable layer!!!!!!
10 11
rdt_send: Received a corrupted packet: Type = ACK, Length = 4
rdt_send: Drop the packet
rdt_send: Received a wrong ACK packet
rdt_send: Timeout!! Retransmit the packet(s): 7 8 9 10 WARNING: udt_send: Packet
corrupted in unreliable layer!!!!!!
11
rdt_send: Received the ACK:7 (7-11)
rdt_send: Received the ACK:8 (7-11)
rdt_send: Received a corrupted packet: Type = ACK, Length = 4
rdt_send: Drop the packet
rdt_send: Received the ACK:10 (7-11)
rdt_send: Timeout!! Retransmit the packet(s): WARNING: udt_send: Packet lost in
unreliable layer!!!!!!
11
rdt_send: Timeout!! Retransmit the packet(s): 11
rdt_send: Received the ACK:11 (7-11)
Complete the file transfer.
Total elapse time: 0.655 s      Throughput: 14.06 KB/s
rdt_close: Nothing happened for 500.00 milliseconds
rdt_close: Release the socket
Client program terminated
atctam@atctam-Ubuntu-PC:~/Project/Part3-code$

```