Lost Packet in our Project :

When a packet is received, the server checks if the client's address is in the client_info dictionary. If the address is not present, it means that the client is new and the server sends an acknowledgment (ACK) with the "SIGNACK" signal. If the client already exists in client_info, the server checks the congestion window size for that client. When receiving a packet, the server checks if the packet is in the expected order by comparing its ID with that of last_received_id[addr]. If the packet is in order, the server processes the packet and sends an appropriate acknowledgment (ACK). If the packet is out of order, it means a packet has been lost. In this case, the server sends a "SIGNLOST" signal to the client with the expected packet ID using the send_lost_packet_signal function.

In our client code, if a packet is lost, the RUDP server will send a "SIGNLOST" signal to the client with the ID of the lost packet. The client handles this signal by calling the handle_lost_packet_signal function, which returns the lost packet to the RUDP server. The solution to handle packet loss in this case is to use this handle_lost_packet_signal function. This function retrieves the lost packet information from the sent_packets dictionary and sends the packet back to the RUDP server using the same signal that was originally sent. This allows the RUDP server to receive the lost packet and continue processing subsequent packets.