

Lab 1 – Socket Programming – TCP

Exercise 1

Design a client-server application using connection oriented protocol (TCP) with the server performing bit stuffing by inserting a bit 0 after every consecutive five 1s. For example, if the data sent to the server is 0101111110011111001010, after bit stuffing, the server sends back 010111110100111110001010.

The communication goes as follows:

- The client sends a message consisting of binary data to the server.
- The server
 - receives the message,
 - performs bit stuffing on the data, and
 - sends the resultant bit stuffed message back to the client.

The messages sent and received should be displayed on both the client and receiver.