

Introduction to Socket Programming and implementation of checksum

In this experiment you and your lab mate will have to write two programs. EchoClient and EchoServer. The programs should deliver the following:

EchoClient:

Step 1: Client will create a socket and connect to the server. (server needs to be already running)

Step 2: Client should read a line of text from a text file (called input.txt).

Step 3: Client should calculate the checksum of that read line. (assume the client and server agreed on divisor **16**)

Step 4: Let's assume the checksum is **m**. The client will now concatenate the checksum after the read input line as: **inputLine##m**

Step 5: Client will send the concatenated new input line to the server.

Step 6: Repeat from **step 2**.

EchoServer:

Step 1: Server will create a socket on port no 2200

Step 2: If there is data on the socket server will read it

Step 3: Server will split the data and extract the checksum and input line (separate them)

Step 4: Server will also calculate the checksum of the extracted input line.

Step 5: If the checksums match server will display the message on stdout. And if they don't match the server will display an error message ("error occurred during transmission")

Step 6: Repeat from **step 2**.