Computer Networks Project

Socket Programming

A TV Game Show

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HOW TO RUN THE PROJECT:

1. Unzip the binaries and the source code files.
2. Open terminal and go to the location where the serverClient jar file is stored. Then type the command:

   java –jar QuizServer.jar FILENAME

   FILENAME is the path of the file which has the question bank. If question bank and jar file are in same path use the command:

   java –jar QuizServer.jar QuestionBank.xml

3. Then on another terminal run the client jar file by typing the command:
   Java –jar QuizClient.jar SERVERIPADRESS
   As a command line argument pass the IP address of the system that is running the serverClient. If the client and server are on the same system this field is optional.
4. Two such players must join the game for the game to begin.
5. On the client side you must enter your name.
6. After reading the question received from the server you must enter the character Y to click the buzzer after which you get a chance to answer.
7. After the questioning is completed the winner is declared.

A BRIEF OF HOW IT WORKS BACKEND:

First the server begins running on port #5000. The clients then request to join and join the socket. The server end delegates each client to an individual thread. The server then reads and receives their names. The clients themselves run 2 separate threads, one for reading messages from the server through the socket and the other to read user input from command line (stdin). When a question has to be sent it is simultaneously sent to both clients. After one clicks the buzzer, he is accepted as the one who is to answer. A signal is sent to the other one to wait till question is completed. Once the question is answered the score is resent which is calculated by the server. This process repeats. Once the quiz is over the winner is calculated by the server and appropriate messages are sent to each client. The client and server socket then disconnects and the program ends.