Practical 7

Q1. Describe briefly the main technical steps involved in setting up a network server in Java via TCP/IP?

1. we need to set up a server socket object with a port number(ip address) and queue length(maximum number of clients):
   1. ServerSocket server = new ServerSocket(portNumber, queueLength);
   2. E.g. ServerSocket server = new ServerSocket(5678, 10);
2. Then create a socket connection for the server to listen to a client
   1. Socket socket = server.accept();

Q2. Describe briefly the main technical steps involved in setting up a network client in Java via TCP/IP?

1. We need to create a socket to connect to a server.
   1. Socket socket = new Socket(serverAdress, port);
   2. E.g Socket socket = new Socket(remoteHost, 5678);
2. Getting the I/O stream to allow the client to communicate with the server.
   1. BufferedReader in = new BufferedReader(new InputStreamReader(socket.getInputStream()));

PrintWriter out = new PrintWriter(socket.getOutputStream());

7.3

Q1. Explain the purposes of the classes: SChatServer class and SChatter class.

1. SChatServer class is setting up the network server on port 5678 and then creating a socket connection to listen for the client.
2. SChatter class keeps track of how many users are logged onto to it. Broadcasts the text that what of the clients has typed to all the clients that are connected including the person that sent the message.

Q2. Explain the purposes of the following two lines

1. Server.accept() is to establish a connection with the server to listen to the client.
2. new SChatter(client).start() initialising a new client through the SChatter class