Distributed Computer Systems – Laboratory 3

TCP Sockets

1. Compile and run the programs delivered by the lecturer.
2. Modify the server code so that the server can be started at any port (passed as an argument to the application). Information about the IP number and port should be displayed in the console after starting the server.
3. Modify the client so that it would be able to connect to the server in a real-world computer network after providing the IP number and port read from the text file (let's call it **config.txt**). Test the connection from two different computers.
4. Write a server program that, after the client establishing a connection, performs the following operations, depending on the command sent by the client:
    a. STATS <text> - returning statistics of the text string <txt> sent by the client, i.e. the number of lowercase and uppercase letters respectively, the number of digits, and the number of remaining characters
    b. ANAGRAM <text> – returning an anagram of the text string <text> sent by the client
    c. DROP – closing the connection with this client
    d. If an incorrect command is received, the server should return error information.
5. Start the server and check if it works with different clients.

Source: https://docs.oracle.com/javase/8/docs/api/?java/net/Socket.html

ServerSocket (Java Platform SE 8) (oracle.com)