Socket programming in java

This project describes a very basic two-way Client and Server setup where a Client connects, sends messages to server and the server modify and send them back using socket connection. There’s a lot of low-level stuff that needs to happen for these things to work but the Java API networking package (java.net) takes care of all of that, making network programming very easy for programmers.

* **Establish a socket connection**

To connect to another machine, we need a socket connection. A socket connection means the two machines have information about each other’s network location (IP Address) and TCP port. The java.net.Socket class represents a Socket. To open a socket:

**Socket socket = new Socket (“127.0.0.1”, 6688);**

* First argument – IP address of Server. (127.0.0.1 is the IP address of localhost, where code will run on single stand-alone machine).
* Second argument – TCP Port. (Just a number representing which application to run on a server. For example, HTTP runs on port 80. Port number can be from 0 to 65535).
* **Communication**

To communicate over a socket connection, streams are used to both input and output the data.

* **Server connection**

To write a server application two sockets are needed.

* A ServerSocket which waits for the client requests (when a client makes a new Socket ())
* A plain old Socket socket to use for communication with the client.