INSY 4305/5352 Assignment #5

**Networking**

Use a socket connection to allow a client to specify a file name and have the server send the contents of the file or indicate that the file does not exist. The contents of the file received at the client's side should be displayed in a JTextArea. Assume that the Client program is retrieving only text files.

Note that your Server program should be a non-GUI application that only sends/receives data to/from the client and reads from the specified file. Your Client program should be a GUI application (JFrame) containing a JTextField in the north and a JTextArea in the center.

You can use the following streams for communication between the client and the server:

output = new BufferedWriter( new OutputStreamWriter( connection.getOutputStream() ) );

input = new BufferedReader( new InputStreamReader( connection.getInputStream() ) );

Where connection is a Socket object. You can use the following streams from the server to read from a file:

BufferedReader fileInput = new BufferedReader( new FileReader ( filename ) );

Where filename is the name of the file. To check whether a file exists on the server side do the following:

File file = new File( filename );

if ( file.exists() && file.isFile() )

// the file exists

else

// file does not exist

**Note:**

1. You should be able to retrieve as many files on the Client side as you like by typing the name of a file in the JTextField and hitting return. The Client should make a connection with the Server ONLY when the user types a file name in the JTextField and hits return. It should close that connection the moment the file is retrieved from the Server.
2. The server should operate in an infinite loop waiting for more connections.
3. The server should use port #8189.
4. **To avoid submission of another file name from the Client while the previous file is being received, disable the textfield as soon as the user enters a file name and hits return. Enable the textfield only after the file has been retrieved and the connection closed.**

**Deliverables:**

You should name the files as Server.java and Client.java, and submit both files.