**CSE 5306: Distributed Systems - Lab 1 : Distributed File Service**

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How to Compile and Run Program on System:

1. Download the zip file
2. Unzip the zip file
3. Open Eclipse->Go to File->Import->General->Existing Projects in Workspace->Click Next->For Select root directory option, browse the folder Lab1\_DistributedSystems present in the unzip folder->Finish
4. Create three folders for three Clients in any directory and name them as:
5. Client1Directory
6. Client2Directory
7. Client3Sirectory

Change the path in Frame1GUI.java file to the path of your

Client1Directory.

Change the path in Frame2GUI.java file to the path of your

Client2Directory.

Change the path in Frame3GUI.java file to the path of your

Client3Directory.

1. Create a folder for Server in the any directory and name that as ServerDirectory. Change the path of Server directory wherever mentioned in MyServer.java file in lines having line number 141, 143, and 146
2. After this, open the project imported in Eclipse. Go to ServerFrame.java and run that file.
3. Go to Frame1GUI.java and run that file
4. Go to Frame2GUI.java and run that file
5. Go to Frame3GUI.java and run that file
6. Four Frames will open on your Desktop.
7. Go to the Start button on Server Frame and click that. Server will start running.
8. Now Enter Username for clients on all the three frames and click on submit button.
9. Once you get pop up saying that client is connected for all the three frames , go to your directory where you have created folders Client1Directory, Client2Directory,Client3Directory and ServerDirectory.
10. Take any file from any other folder besides all these four folders, which should be of few hundred kilobytes in size and copy to any Client Folder.
11. Once you put any new file in any Client directory you will see that the file from Client Directory is uploaded to Server Directory. Repeat the process.
12. Check the Frames and you will see all the output for the process carried out.

Known Bugs:

1. When a Client enters a username that is duplicate, server gets the message saying that the client has duplicate username but message doesn’t get print on client side. But socket gets closed for the duplicate username and when you re-enter the name of the client and submit the button, you can continue with process. So, only bug here is client side just doesn’t get message that username is duplicate on GUI but works fine for username validation

Limitations:

1. Downloading of files from Server is not done in the given project.

Links of Sites used in the projects:

1. <https://www.tutorialspoint.com/how-to-set-action-command-to-jbutton-in-java>
2. <https://stackoverflow.com/questions/35094602/java-app-cant-be-closed-even-close-on-exit-tcp-server>
3. /https://stackoverflow.com/questions/5107629/how-to-redirect-console-content-to-a-textarea-in-java
4. <https://www.baeldung.com/java-nio2-watchservice>
5. <https://coderanch.com/t/556838/java/Transferring-file-file-data-socket>
6. <https://gist.github.com/CarlEkerot/2693246>
7. <https://www.rgagnon.com/javadetails/java-0542.html>
8. <https://www.tutorialspoint.com/how-to-set-action-command-to-jbutton-in-java>
9. <https://stackoverflow.com/questions/35094602/java-app-cant-be-closed-even-close-on-exit-tcp-server>
10. <https://coderanch.com/t/556838/java/Transferring-file-file-data-socket>
11. <https://coderanch.com/t/556838/java/Transferring-file-file-data-socket>
12. <https://coderanch.com/t/556838/java/Transferring-file-file-data-socket>
13. <https://gist.github.com/CarlEkerot/2693246>
14. https://www.rgagnon.com/javadetails/java-0542.html