**//Project Title**

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**1) Introduction**

* 1. **Context**With the advancement in technology, file sharing has become an important aspect of the our day to day internet use, going from portable devices to cloud sharing and storage. We wanted to create something at a student level with the basic functionality of sharing files over the internet.   
     “Project Title” allows for easy sharing of the files with ‘server-to-peer’ and ‘peer-to-peer’ functionality.   
     //Add concepts used to build the project, for example: P2P connections, etc.
  2. **Problem Statement**Earlier in the course, for the assignment, our team built a simple file sharing system but it was only between two users. Our goal for this project was to build on that system and make it better by adding more functionality, such as multiple users, an easy-to-use GUI, and more.
  3. **Result**Having two subdivisions of our goals allowed us to divide and manage our work easily and keep our expectations and results realistic. The highlight of our project would be the server connecting multiple clients together, acting as a sort of concierge.   
     //Add a checklist sorts which shows which of our goals we were able to achieve, and which ones we weren’t.
  4. **Outline**In reference to our problems, the following outlines our process of working towards our goals and how our project came to completion.  
     **a)** Section 2 contains background information on the concepts that we have used.  
     **b)** Section 3 describes in detail how said concepts were used to build the project.  
     **c)** The evaluation of the resulting project were presented in Section 4.  
     **d)** We conclude our work in Section 5.

**2) Background Information**Project Awesome is an extension to the assignment that we did earlier in this course. The premise is the same, connecting users together and allowing them to share files. We improved on the way two users were connecting to each other. For the project, since there is an identifiable ‘server’ and multiple ‘clients’ connecting to it, ‘threads’ were introduced which would allow us to manage all the connections better. Also, the whole system has been incorporated with a GUI which allows for smooth use by anyone.  
 //technical jargon  
 //maybe give flowcharts for the control flow for both client and server

**3) Result**Our results were fairly simple to achieve because of the goals we set, challenging but achievable.   
 a) User identification – When logging onto the server, every user has to provide a user name for identification purposes. The first window that opens asks for three details; the IP address of the server, the username, and the directory which they wish to share. After this information is processed, the new user is connected to the server and its information is relayed to all the other users that are online so they can browse it’s directory.  
//Add a screen shot of the window  
 b) Multiple connections – As mentioned earlier, we used threads in order to manage multiple connections to the server. Each connection has a minimum of two dedicated threads, a server thread which is processing all the information and handling the connection, and a client thread whose job is to listen for commands. //Expand on it  
 c) Peer-to-peer – To make file sharing easier and faster, we added the functionality of peer-to-peer connections which would allow two users to share a file between each other without having to go through the server. These connections are only temporary and are terminated as soon as the file is shared.

d) Chat – This functionality allows the clients to talk to each other when they are connected to the server. The process for this was fairly simple; a client types a message and hits send, the message is the sent to the server which in turn relays the message to every client and ends up on the chat window for everyone to see.

**4) Evaluation**

**5) Conclusion**

**Contribution of Team Members**

**References**

**Final Word**