**ABSTRACT**

The File Transfer Protocol (FTP) is a standard network protocol used to transfer computer files between a client and server on a computer network.

FTP is built on a client-server model architecture and uses separate control and data connections between the client and the server. FTP users may authenticate themselves with a clear-text sign-in protocol, normally in the form of a username and password, but can connect anonymously if the server is configured to allow it. For secure transmission that protects the username and password, and encrypts the content, FTP is often secured with SSL/TLS (FTPS). SSH File Transfer Protocol (SFTP) is sometimes also used instead, but is technologically different.

**LITERATURE SURVEY**

There was a time where if the user wanted to download a file from the network,he has to request the Server for the same. With the rapid improvement in the internet technologies, we intend to make a Peer-to-Peer file transfer network which is easy to install and so is the configuration of computers on this network, all the resources and contents are shared by all the peers, unlike server-client architecture where Server shares all the contents and resources.  
P2P is more reliable as central dependency is eliminated as on a server-client architecture, too many requests from the clients may lead to congestion, which rarely takes place in P2P network. Overload can lead to breaking-down of servers. Failure of one peer doesn’t affect the functioning of other peers.

**PROBLEM STATEMENT**

The primary purpose of the FTP is to transfer files between two computers, one acting as a client and the other as a server. The improvised version of the FTP client-server model here keeps a track of files on all the computers connected to the server and then processes client’s request by directing the connection between the client and the computer(also the client) which has the file on its disk.

**METHODOLOGY**

* Initially to maintain a record of all the files that the clients will have, the server runs a program dbclient.c which uses a structure called FTW which gathers information regarding the entire path of the files that a particular client has.
* We maintain a server database program called databaseserver.c . In this file, the server maintains a database containing all the files gathered from dbclient.c along with the client’s IP address. The IP address of the computer is fetched in the string format using inet\_ntoa() from the sockaddr\_in structure.
* In the mainC.c file, the first user is asked for a file he wants. It then sends the name of the file to databaseserver.c where the name of the file and the ip address is searched and the result(path of the file on the client and ip address of the client to be connected to) is provided. The client converts the received address from string to network format using inet\_aton().
* This client then connects to that other client whose IP address it has received for the file it requested. A peer-to-peer connection is then maintained where the other client would then send the file to that client that requested it.