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FTP Simulation

Using Socket Programming in TCP/IP

- 1) Problem Statement: The aim of this project is to implement FTP Application between a server and a client. The application is a console based application and is implemented using Unix Sockets.
- 2) Programming Language: C is used to implement FTP Application. Multiple Clients can connect to the server at the same time.
- 3) UNP Concepts Implemented:
 - 1) Interprocess Communication - Unix Sockets are used for Interprocess Communication between client(s) and server.
 - 2) Multi-Client Environment - Fork System Call is used to connect Multiple clients with the server.
 - 3) Internet Protocol - IPv4 is used to transfer data over connection.
 - 4) Shell Command - System calls for performing operations on directory, transferring of text files and changing or getting current paths are used to implement commands.
- 4) USER, PASS, MKD, CWD, PWD, RMD, RETR, STOR, ABOR, LIST & QUIT commands are implemented. ([Ref Link](#))
- 5) Contribution and Learning Experience:

Contribution: Project is implemented by myself only.

Learning:

 - 1) Learnt How to use sockets for Interprocess Communication.
 - 2) Learnt when to use select() and fork() for Multiple Clients.
 - 3) Learnt how to transfer text file over connection.
 - 4) Learnt how to create Shell Command using System Calls.

Supervisor

Nisha Singh