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| **Name** | **Pratik Pujari** | | |
| **UID no.** | **2020300054** | **Class:** | **Comps C Batch** |
| **Experiment No.** | 6 | | |

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| **AIM:** | To implement a FTP Server on Ubuntu Machine |

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| **THEORY:** | **What Does FTP Server Mean?**  The primary purpose of an FTP server is to allow users to upload and download files. An FTP server is a computer that has a file transfer protocol (FTP) address and is dedicated to receiving an FTP connection. FTP is a protocol used to transfer files via the internet between a server (sender) and a client (receiver). An FTP server is a computer that offers files available for download via an FTP protocol, and it is a common solution used to facilitate remote data sharing between computers.   * FTP stands for File transfer protocol. * FTP is a standard internet protocol provided by TCP/IP used for transmitting the files from one host to another. * It is mainly used for transferring the web page files from their creator to the computer that acts as a server for other computers on the internet. * It is also used for downloading the files to computer from other servers.   **Role of the FTP Server**  The FTP server allows the downloading and uploading of files. The FTP server’s administrator can restrict access for downloading different files and from different folders residing in the FTP server. Files residing in FTP servers can be retrieved by common web browsers, but they may not support protocol extensions like FTPS. With an FTP connection, it is possible to resume an interrupted download that was not successfully completed; in other words, checkpoint restart support is provided.  **Mechanism of FTP**  Computer Network FTP  The above figure shows the basic model of the FTP. The FTP client has three components: the user interface, control process, and data transfer process. The server has two components: the server control process and the server data transfer process.  **There are two types of connections in FTP:**  Computer Network FTP   * **Control Connection:** The control connection uses very simple rules for communication. Through control connection, we can transfer a line of command or line of response at a time. The control connection is made between the control processes. The control connection remains connected during the entire interactive FTP session. * **Data Connection:** The Data Connection uses very complex rules as data types may vary. The data connection is made between data transfer processes. The data connection opens when a command comes for transferring the files and closes when the file is transferred.   **Advantages of FTP:**   * Speed: One of the biggest advantages of FTP is speed. The FTP is one of the fastest way to transfer the files from one computer to another computer. * Efficient: It is more efficient as we do not need to complete all the operations to get the entire file. * Security: To access the FTP server, we need to login with the username and password. Therefore, we can say that FTP is more secure.   **Disadvantages of FTP:**   * The standard requirement of the industry is that all the FTP transmissions should be encrypted. However, not all the FTP providers are equal and not all the providers offer encryption. So, we will have to look out for the FTP providers that provides encryption. * FTP serves two operations, i.e., to send and receive large files on a network. However, the size limit of the file is 2GB that can be sent. It also doesn't allow you to run simultaneous transfers to multiple receivers. * It is not compatible with every system. |
| **Public FTP Server** | |
| **PROCEDURE:** | * You can quickly install vsftpd on your virtual private server in the command line      * Change the directory to etc\      * Once vsftpd is installed, you can adjust the configuration. Open up the configuration file:      * The biggest change you need to make is to switch the Anonymous\_enable from YES to NO      * Creating a new user who can access the file:      * Entering user details: Username: pratik Pwd: \*\*\*\*\*\*\*      * Navigate back to the root directory and changing the current directory to home directory:      * Changing current directory to user directory:      * Making a new directory myfiles that will contain our text file that needs to be transferred:      * Creating a new text file sample.txt:        * Creating vsftp.chroot\_list within the etc directory where we will add the user’s name to the list:        * Change the present directory to myfiles and change the ownership of that file to sample      * Restarting after making upgradation in the vsftpd:      * Open browser and enter the following url: <ftp://10.0.2.15>          * Open the myfiles folder and to access the same, we need to enter our username and password that were created while adding the new user |

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| **Private FTP Server** | |
| **PROCEDURE:** | 1) You can quickly install vsftpd on your virtual private server in the command line:      2) Once vsftpd is installed, you can adjust the configuration. Open up the configuration file:    The biggest change you need to make is to switch the Anonymous\_enable from NO to YES:  3) Switching to FTP directory and Create a text file sample..txt that will be transferred:    4) Restarting vsftpd after upgradation:    5) Opening browser and entering the following url: ftp://10.0.2.15      9) Opening the sample.txt file, we obtain:    10) You can quickly install vsftpd on your virtual private server in the command line:      11) Once vsftpd is installed, you can adjust the configuration. Open up the configuration file:    The biggest change you need to make is to switch the Anonymous\_enable from NO to YES:  12) Switching to FTP directory and Create a text file sample..txt that will be transferred:    13) Restarting vsftpd after upgradation:    14) Opening browser and entering the following url: ftp://10.0.2.15      15) Opening the sample.txt file, we obtain: |
| **RESULT:** Implement the FTP server through private user and public server. Learnt how to deploy a private and public ftp server using the VSFTPD package in ubuntu. | |