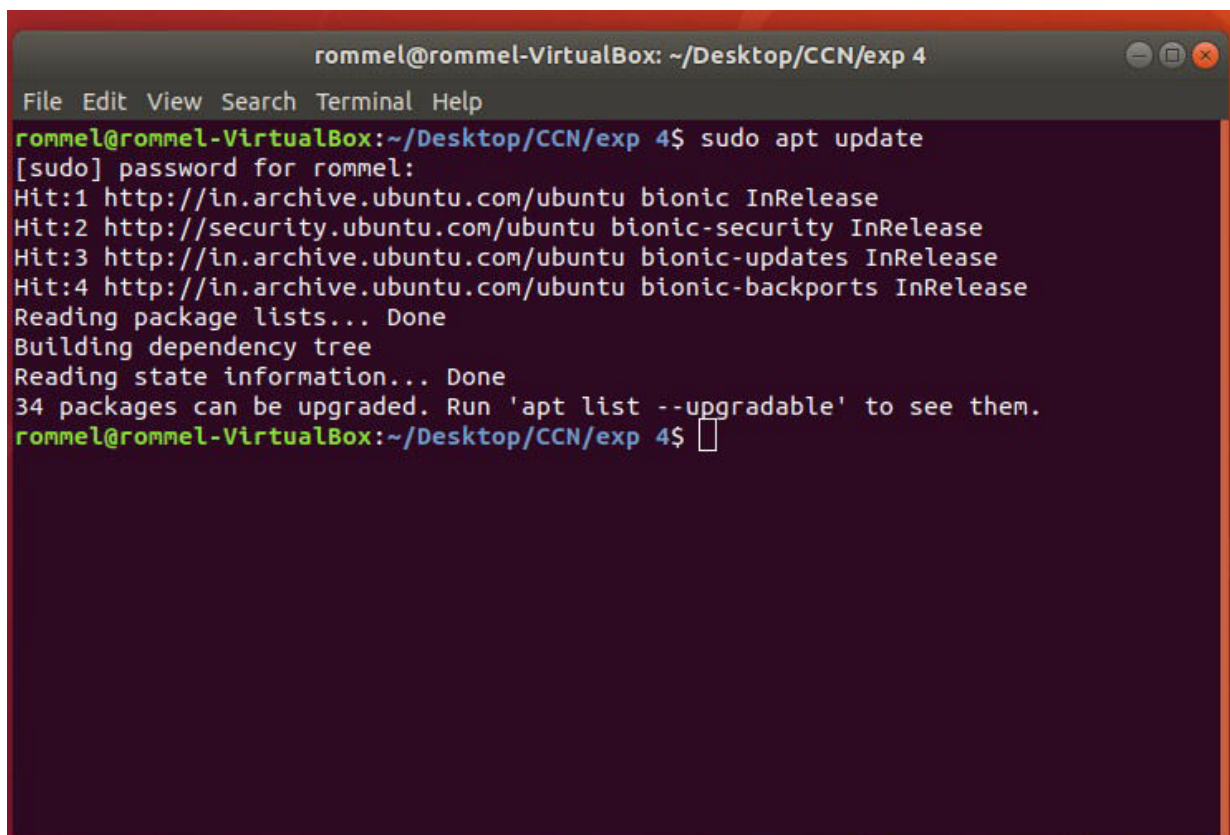


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<b>Experiment:</b>	4

**Aim:** Implement FTP server for given scenario.

---

**Step 1:** Update the system.



```
rommel@rommel-VirtualBox: ~/Desktop/CCN/exp 4
File Edit View Search Terminal Help
rommel@rommel-VirtualBox:~/Desktop/CCN/exp 4$ sudo apt update
[sudo] password for rommel:
Hit:1 http://in.archive.ubuntu.com/ubuntu bionic InRelease
Hit:2 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu bionic-backports InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
34 packages can be upgraded. Run 'apt list --upgradable' to see them.
rommel@rommel-VirtualBox:~/Desktop/CCN/exp 4$
```

**Step 2:** Install VSDTPD

```
rommel@rommel-VirtualBox: ~/Desktop/CCN/exp 4
File Edit View Search Terminal Help
rommel@rommel-VirtualBox:~/Desktop/CCN/exp 4$ sudo apt install -y vsftpd
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  vsftpd
0 upgraded, 1 newly installed, 0 to remove and 34 not upgraded.
Need to get 115 kB of archives.
After this operation, 334 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu bionic/main amd64 vsftpd amd64 3.0.3-9build1 [115 kB]
Fetched 115 kB in 1s (105 kB/s)
Preconfiguring packages ...
Selecting previously unselected package vsftpd.
(Reading database ... 168944 files and directories currently installed.)
Preparing to unpack .../vsftpd_3.0.3-9build1_amd64.deb ...
Unpacking vsftpd (3.0.3-9build1) ...
Setting up vsftpd (3.0.3-9build1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/vsftpd.service → /lib/systemd/system/vsftpd.service.
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for ureadahead (0.100.0-21) ...
Processing triggers for systemd (237-3ubuntu10.56) ...
rommel@rommel-VirtualBox:~/Desktop/CCN/exp 4$
```

**Step 3:** Set up configuration file.

```
rommel@rommel-VirtualBox: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 /etc/vsftpd.conf

# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=NO
#
# Uncomment this to allow local users to log in.
local_enable=YES
#
# Uncomment this to enable any form of FTP write command.
write_enable=YES
#
# Default umask for local users is 077. You may wish to change this to 022,
# if your users expect that (022 is used by most other ftpd's)
local_umask=022
#
# Uncomment this to allow the anonymous FTP user to upload files. This only
# has an effect if the above global write enable is activated. Also, you will
# obviously need to create a directory writable by the FTP user.

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Line
```

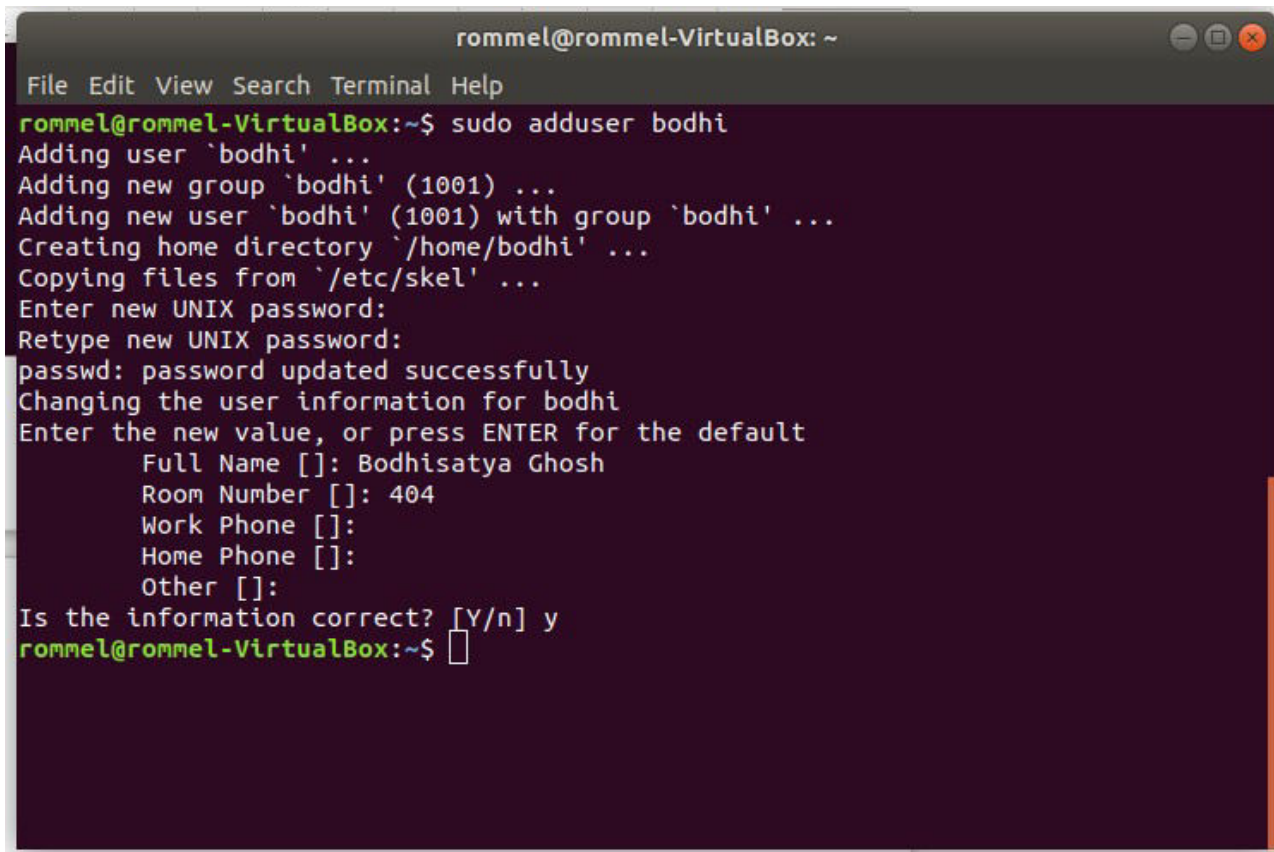
#### Step 4: Restarting vsftpd and checking it's status

```
rommel@rommel-VirtualBox: ~  
File Edit View Search Terminal Help  
rommel@rommel-VirtualBox:~$ sudo systemctl restart vsftpd  
rommel@rommel-VirtualBox:~$ sudo systemctl status vsftpd  
● vsftpd.service - vsftpd FTP server  
   Loaded: loaded (/lib/systemd/system/vsftpd.service; enabled; vendor preset: e  
   Active: active (running) since Sun 2023-02-26 13:09:04 IST; 9s ago  
     Process: 4203 ExecStartPre=/bin/mkdir -p /var/run/vsftpd/empty (code=exited, s  
   Main PID: 4204 (vsftpd)  
     Tasks: 1 (limit: 4915)  
    CGroup: /system.slice/vsftpd.service  
            └─4204 /usr/sbin/vsftpd /etc/vsftpd.conf  
  
Feb 26 13:09:04 rommel-VirtualBox systemd[1]: Starting vsftpd FTP server...  
Feb 26 13:09:04 rommel-VirtualBox systemd[1]: Started vsftpd FTP server.  
lines 1-11/11 (END)
```

#### Step 5: Allow to configure

```
rommel@rommel-VirtualBox: ~  
File Edit View Search Terminal Help  
rommel@rommel-VirtualBox:~$ sudo ufw allow 20/tcp  
Rules updated  
Rules updated (v6)  
rommel@rommel-VirtualBox:~$ sudo ufw allow 21/tcp  
Rules updated  
Rules updated (v6)  
rommel@rommel-VirtualBox:~$
```

## Step 6: Adding user

A terminal window titled 'rommel@rommel-VirtualBox: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the execution of 'sudo adduser bodhi'. It prompts for a password, then displays system messages: 'Adding user `bodhi` ...', 'Adding new group `bodhi` (1001) ...', 'Adding new user `bodhi` (1001) with group `bodhi` ...', 'Creating home directory `/home/bodhi` ...', and 'Copying files from `/etc/skel` ...'. It then asks for a new UNIX password and its retyping, followed by 'passwd: password updated successfully'. Next, it says 'Changing the user information for bodhi' and prompts for a new value or press ENTER for the default. It then asks for Full Name (Bodhisatya Ghosh), Room Number (404), Work Phone, Home Phone, and Other. Finally, it asks 'Is the information correct? [Y/n] y' and returns to the prompt 'rommel@rommel-VirtualBox:~\$' with a cursor.

```
rommel@rommel-VirtualBox: ~  
File Edit View Search Terminal Help  
rommel@rommel-VirtualBox:~$ sudo adduser bodhi  
Adding user `bodhi` ...  
Adding new group `bodhi` (1001) ...  
Adding new user `bodhi` (1001) with group `bodhi` ...  
Creating home directory `/home/bodhi` ...  
Copying files from `/etc/skel` ...  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
Changing the user information for bodhi  
Enter the new value, or press ENTER for the default  
    Full Name []: Bodhisatya Ghosh  
    Room Number []: 404  
    Work Phone []:  
    Home Phone []:  
    Other []:  
Is the information correct? [Y/n] y  
rommel@rommel-VirtualBox:~$
```

## Step 7: Connecting to user and getting a file



## What is FTP?

FTP (File Transfer Protocol) is a network protocol for transmitting files between computers over Transmission Control Protocol/Internet Protocol ([TCP/IP](#)) connections. Within the TCP/IP suite, FTP is considered an application layer protocol.

In an FTP transaction, the end user's computer is typically called the *local host*. The second computer involved in FTP is a *remote host*, which is usually a server. Both computers need to be connected via a network and configured properly to transfer files via FTP. Servers must be set up to run FTP services, and the client must have FTP software installed to access these services.

Although many file transfers can be conducted using Hypertext Transfer Protocol (HTTP) -- another protocol in the [TCP/IP suite](#) -- FTP is still commonly used to transfer files behind the scenes for other applications, such as banking services. It is also sometimes used to download new applications via web browsers.

## What is FTP server?

An FTP Server, in the simplest of definitions, is a software application that enables the transfer of files from one computer to another. FTP (which stands for “File Transfer Protocol”) is a way to transfer files to any computer in the world that is connected to the Internet. If you have remote employees who need to upload non-confidential information (such as timesheets, for example), or if you want to allow your customers to download white papers and documentation, an FTP Server works well for this purpose. If you are exchanging non-sensitive data with business partners, and the partner requires FTP or SFTP, you can quickly set up a server that will accept their data transfer. Some people even use FTP Servers for offsite backup so they can access their data should something physically happen to their files.

Further, backup applications will often write to an FTP or SFTP Server; for example, if you’re backing up your Cisco Unified Call Manager (CUCM), the data must be backed up to an SFTP Server.

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**Conclusion:** In this experiment I have learnt how to implement an FTP server .