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Roll no: 2021-BSE-032

Section : BSE (3A)

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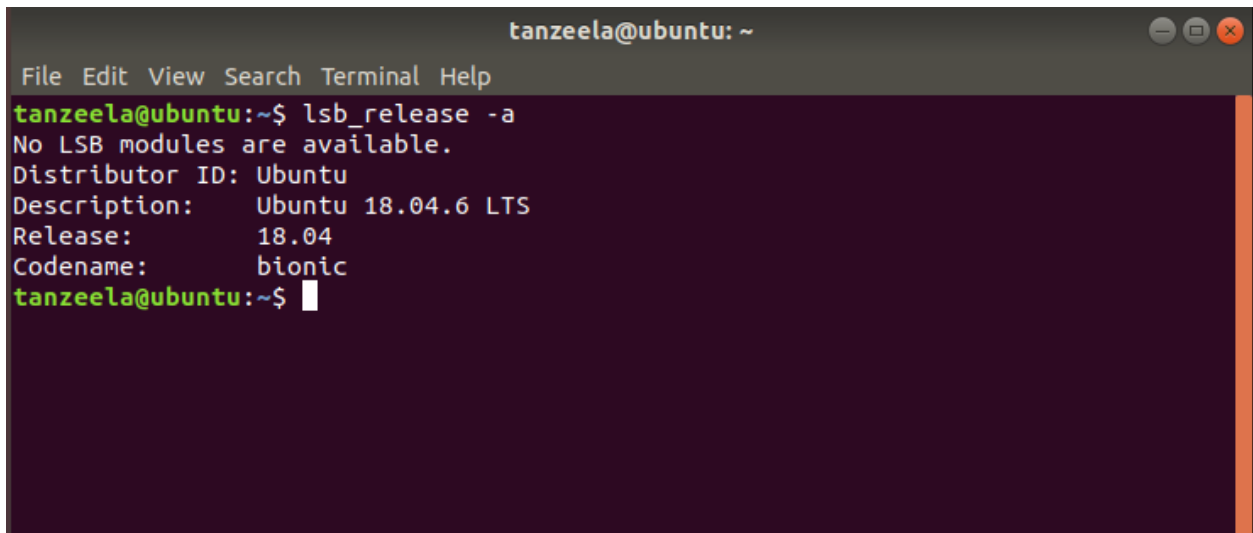
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Project B

FTP Server Setup

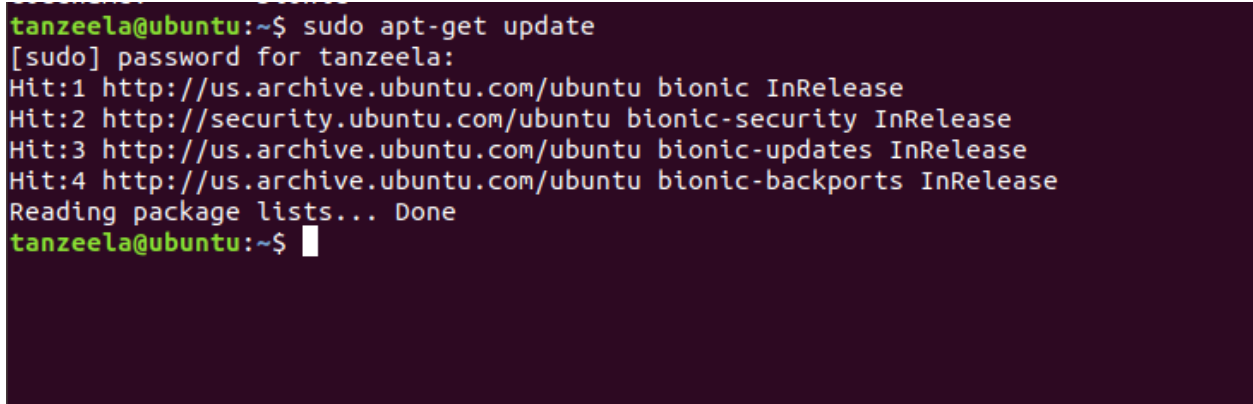
Introduction:

FTP stands for File Transfer Protocol. FTP is a well-established protocol that enables the exchange of data files between computers through a TCP/IP network(internet).

A terminal window titled 'tanzeela@ubuntu: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command 'lsb_release -a' and its output: 'No LSB modules are available.', 'Distributor ID: Ubuntu', 'Description: Ubuntu 18.04.6 LTS', 'Release: 18.04', and 'Codename: bionic'.

```
tanzeela@ubuntu: ~  
File Edit View Search Terminal Help  
tanzeela@ubuntu:~$ lsb_release -a  
No LSB modules are available.  
Distributor ID: Ubuntu  
Description:    Ubuntu 18.04.6 LTS  
Release:       18.04  
Codename:      bionic  
tanzeela@ubuntu:~$
```

Step 1: Update System Packages

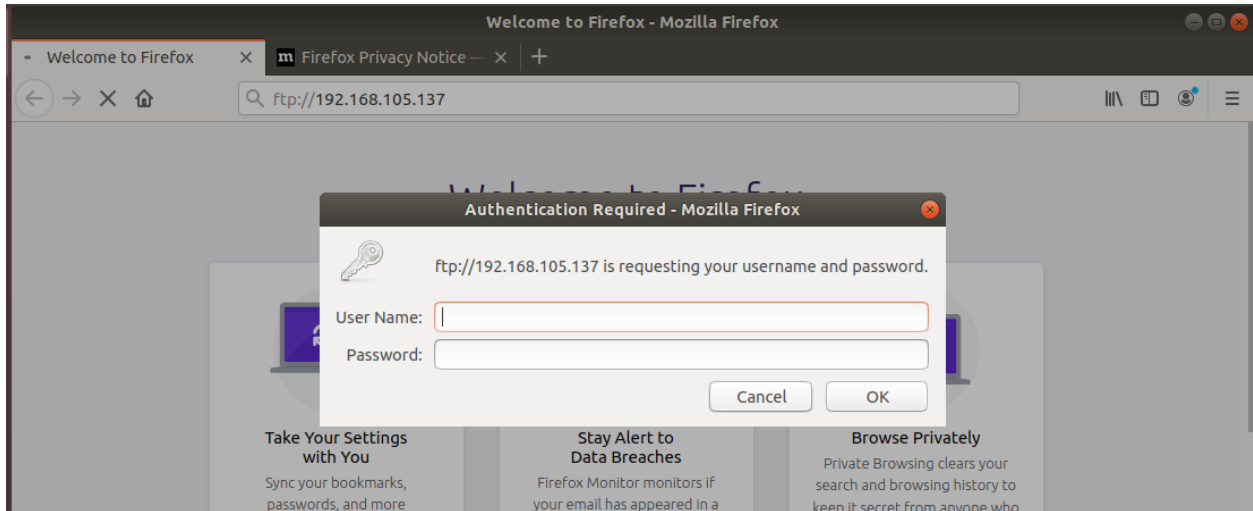
A terminal window showing the command 'sudo apt-get update' and its output. It prompts for a password, then lists four hits for updates from various Ubuntu repositories, and finally reports 'Reading package lists... Done'.

```
tanzeela@ubuntu:~$ sudo apt-get update  
[sudo] password for tanzeela:  
Hit:1 http://us.archive.ubuntu.com/ubuntu bionic InRelease  
Hit:2 http://security.ubuntu.com/ubuntu bionic-security InRelease  
Hit:3 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease  
Hit:4 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease  
Reading package lists... Done  
tanzeela@ubuntu:~$
```

Step 2: Install vsftpd Server on Ubuntu

```
tanzeela@ubuntu: ~  
File Edit View Search Terminal Help  
Reading package lists... Done  
tanzeela@ubuntu:~$ sudo apt-get install vsftpd  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following package was automatically installed and is no longer required:  
  linux-hwe-5.4-headers-5.4.0-84  
Use 'sudo apt autoremove' to remove it.  
The following NEW packages will be installed:  
  vsftpd  
0 upgraded, 1 newly installed, 0 to remove and 30 not upgraded.  
Need to get 115 kB of archives.  
After this operation, 334 kB of additional disk space will be used.  
Get:1 http://us.archive.ubuntu.com/ubuntu bionic/main amd64 vsftpd amd64 3.0.3-9build1 [115 kB]  
Fetched 115 kB in 7s (17.6 kB/s)  
Preconfiguring packages ...  
Selecting previously unselected package vsftpd.  
(Reading database ... 186616 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) ...  
tanzeela@ubuntu:~$
```

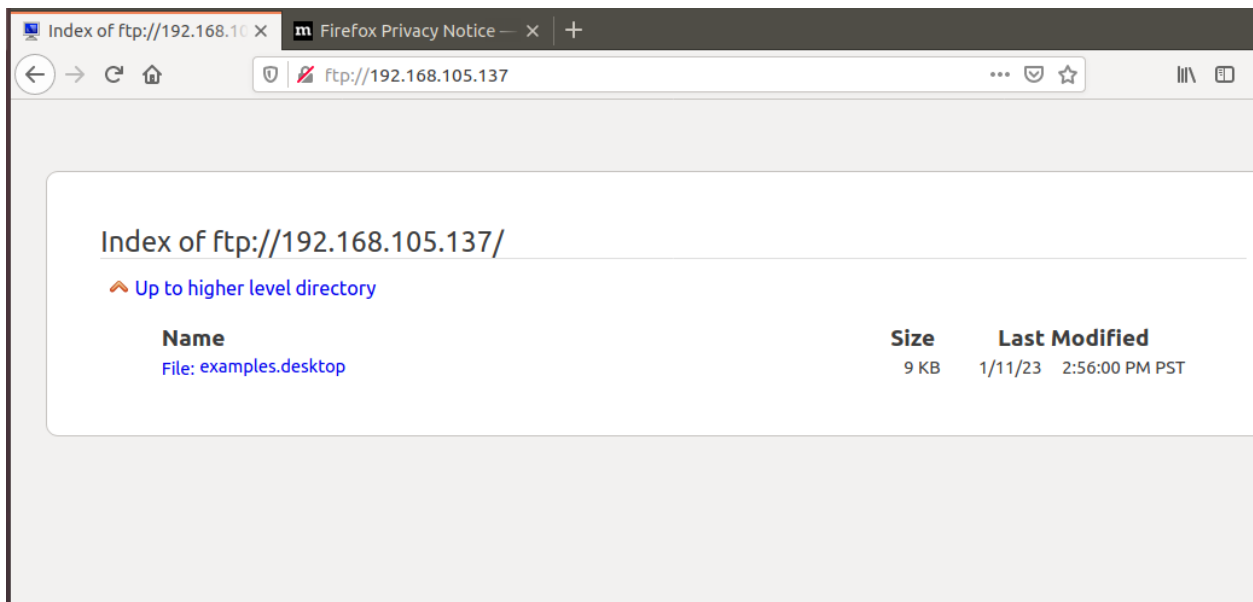
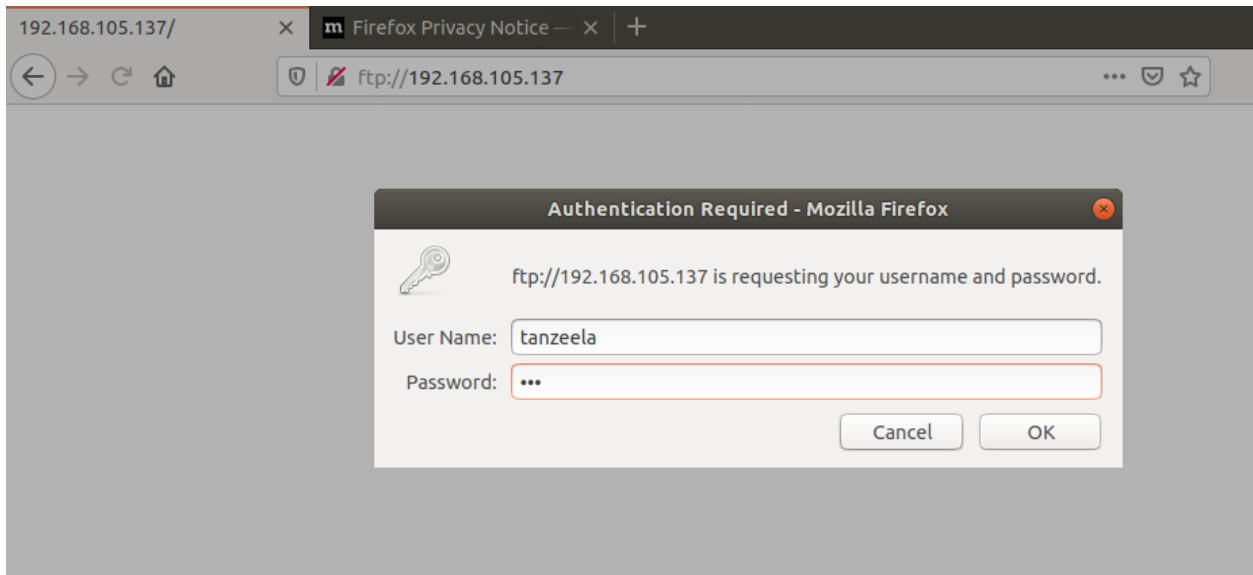
```
tanzeela@ubuntu:~$ ip a  
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000  
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00  
    inet 127.0.0.1/8 scope host lo  
        valid_lft forever preferred_lft forever  
    inet6 ::1/128 scope host  
        valid_lft forever preferred_lft forever  
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000  
    link/ether 00:0c:29:94:0d:8c brd ff:ff:ff:ff:ff:ff  
    inet 192.168.253.129/24 brd 192.168.253.255 scope global dynamic noprefixroute ens33  
        valid_lft 1042sec preferred_lft 1042sec  
    inet6 fe80::e08e:8a20:fee7:2a85/64 scope link noprefixroute  
        valid_lft forever preferred_lft forever  
tanzeela@ubuntu:~$
```



Creating authentic user account:

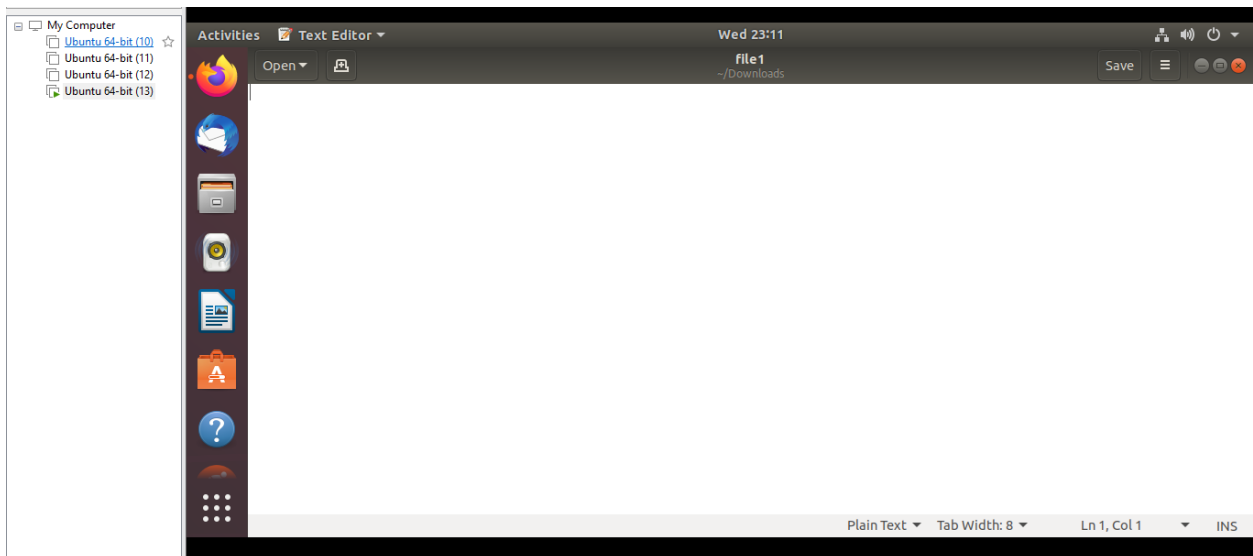
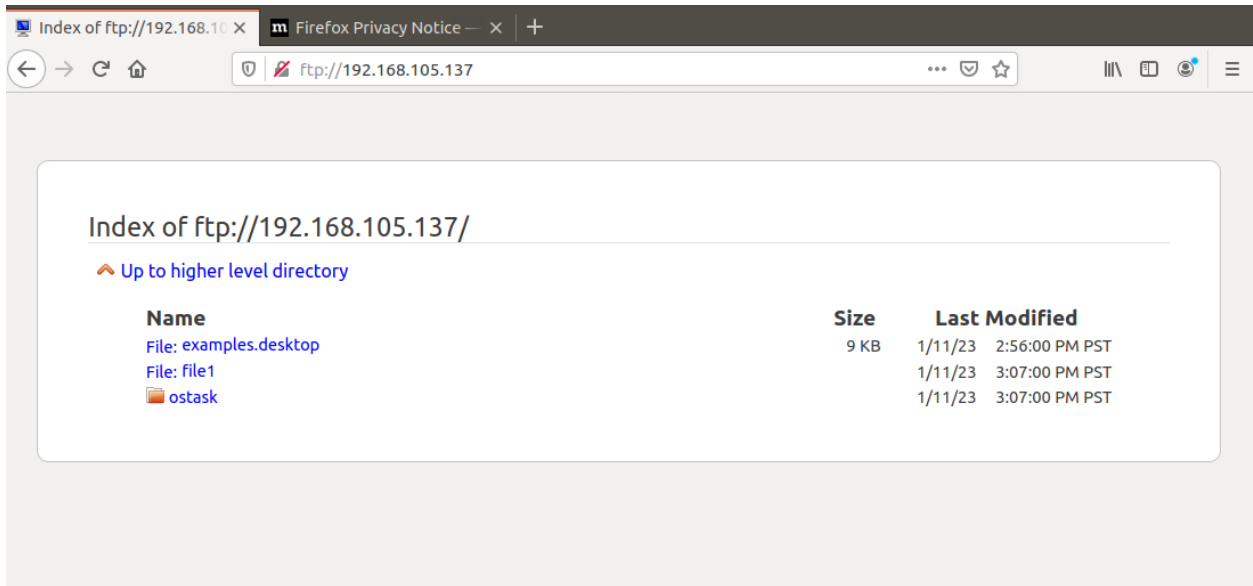
```
project@ubuntu:~$ sudo adduser tanzeela
Adding user `tanzeela' ...
Adding new group `tanzeela' (1001) ...
Adding new user `tanzeela' (1001) with group `tanzeela' ...
Creating home directory `/home/tanzeela' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for tanzeela
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n]
project@ubuntu:~$
```

```
project@ubuntu:~$ sudo systemctl restart vsftpd
project@ubuntu:~$
```



```
project@ubuntu:~$ cd /home/tanzeela
project@ubuntu:/home/tanzeela$ sudo mkdir ostask
project@ubuntu:/home/tanzeela$ sudo touch file1
project@ubuntu:/home/tanzeela$
```

```
project@ubuntu:/home/tanzeela$ sudo systemctl restart vsftpd
project@ubuntu:/home/tanzeela$
```

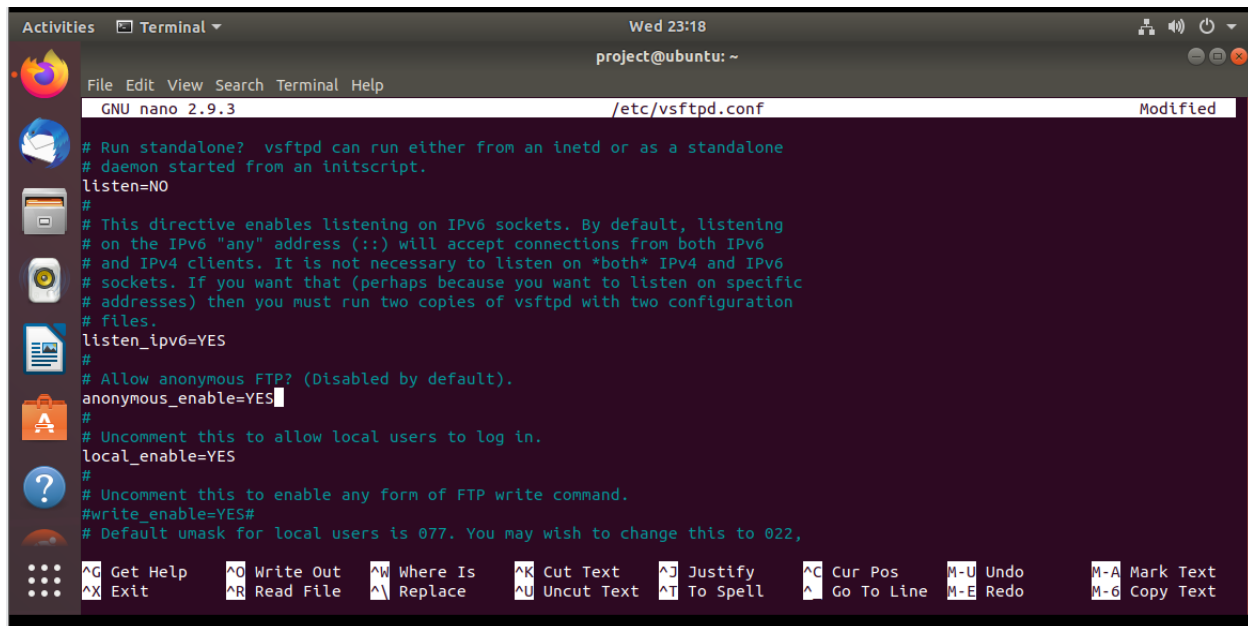


Creating anonymous account:

```
project@ubuntu:~$ sudo nano /etc/vsftpd.conf
```

Authenticate FTP Users

Find the entry labeled `write_enable=NO`, and change the value to “YES.”



```
GNU nano 2.9.3 /etc/vsftpd.conf Modified
# Run standalone? vsftpd can run either from an inetd or as a standalone
# daemon started from an initscript.
listen=NO
#
# This directive enables listening on IPv6 sockets. By default, listening
# on the IPv6 "any" address (:::) will accept connections from both IPv6
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=YES
#
# 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,
```

Save the file, exit, then restart the FTP service.

```
project@ubuntu:~$ sudo systemctl restart vsftpd
project@ubuntu:~$
```

