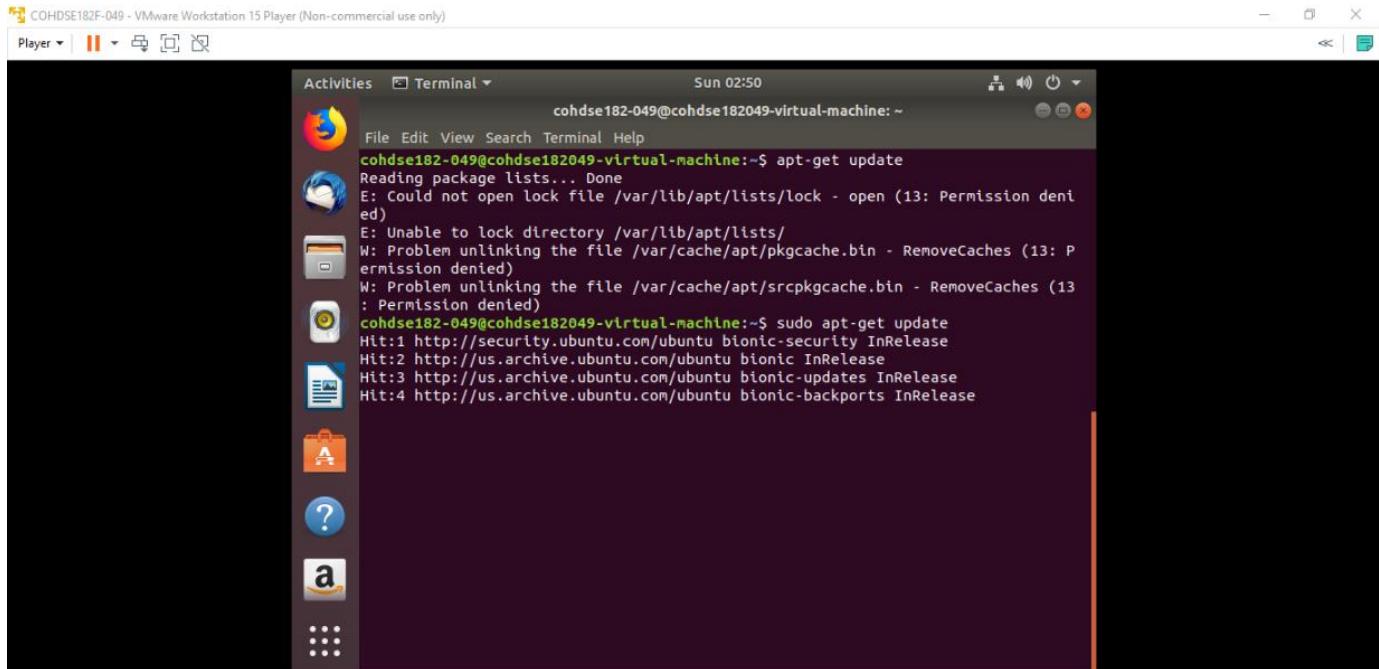
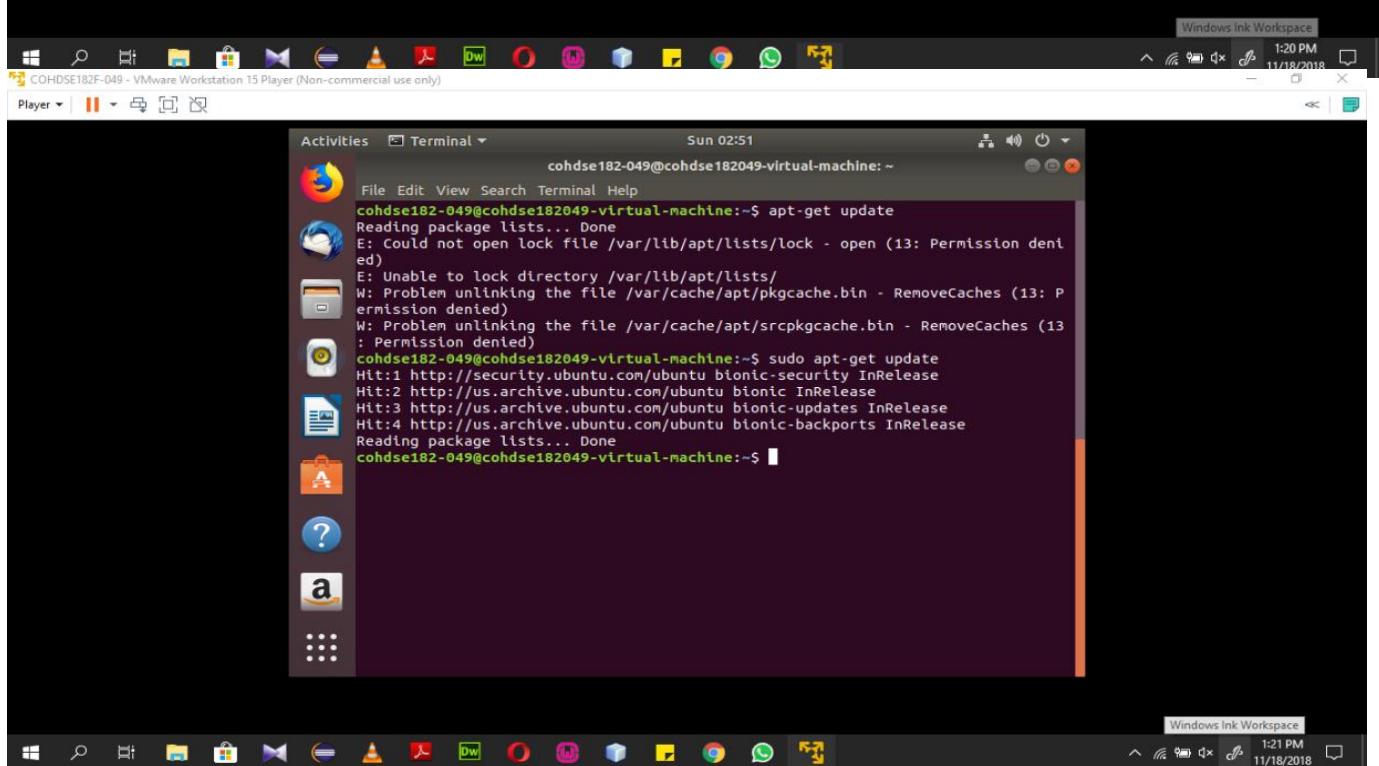


Apache Virtual Hosting

- 1) update the virtual machine using apt-get update

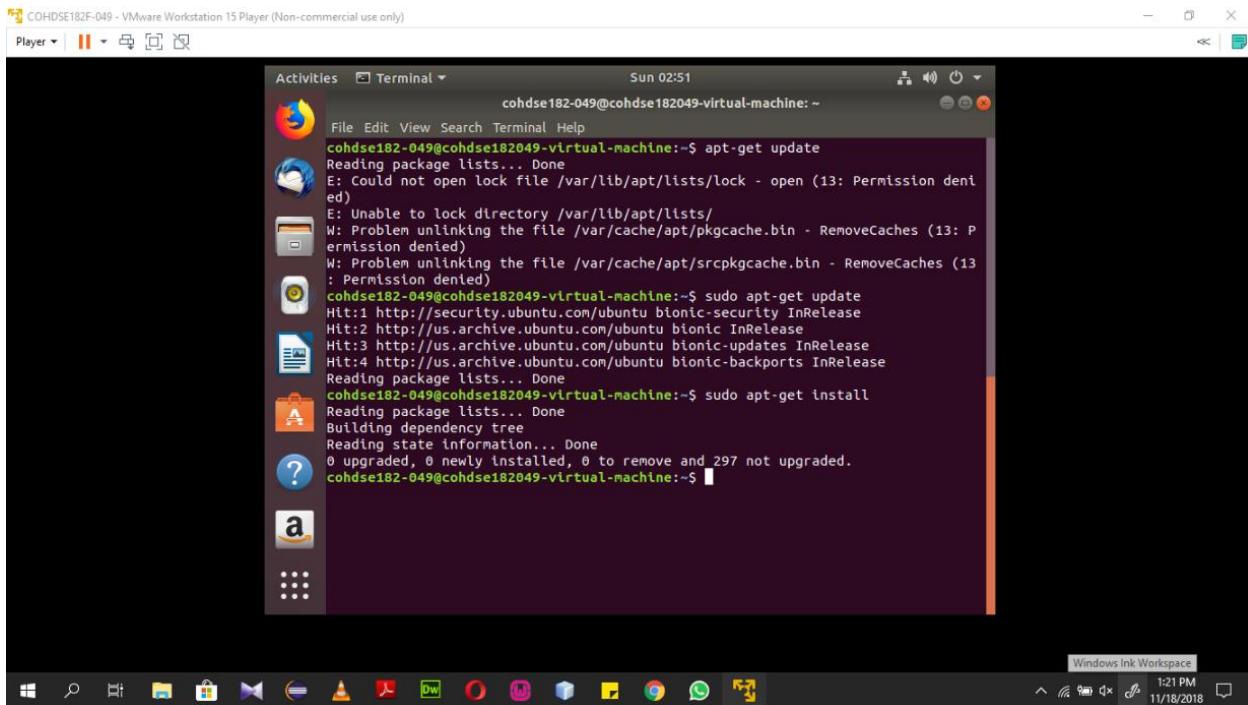


```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player | ||| □ □ □ □ □
Activities Terminal Sun 02:50
cohdse182-049@cohdse182049-virtual-machine:~$ apt-get update
Reading package lists... Done
E: Could not open lock file /var/lib/apt/lists/lock - open (13: Permission denied)
E: Unable to lock directory /var/lib/apt/lists/
W: Problem unlinking the file /var/cache/apt/pkgcache.bin - RemoveCaches (13: Permission denied)
W: Problem unlinking the file /var/cache/apt/srcpkgcache.bin - RemoveCaches (13: Permission denied)
cohdse182-049@cohdse182049-virtual-machine:~$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu bionic InRelease
Hit:3 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:4 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease
```



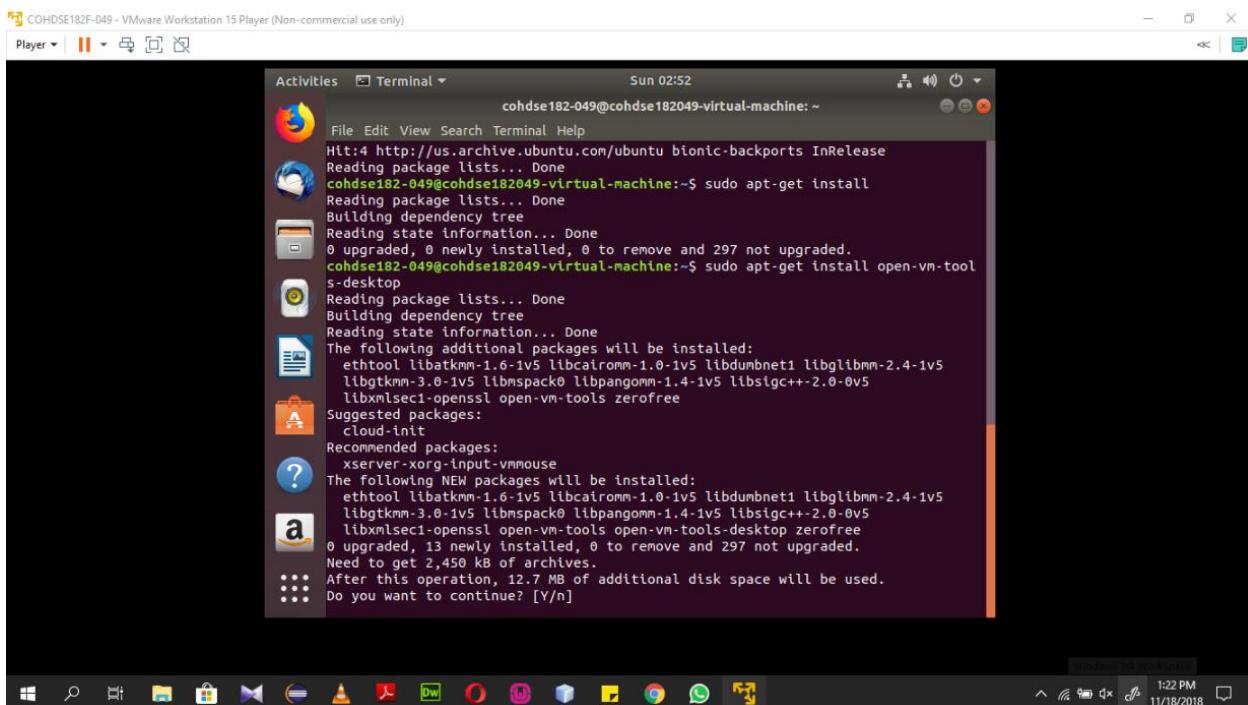
```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player | ||| □ □ □ □ □
Activities Terminal Sun 02:51
cohdse182-049@cohdse182049-virtual-machine:~$ apt-get update
Reading package lists... Done
E: Could not open lock file /var/lib/apt/lists/lock - open (13: Permission denied)
E: Unable to lock directory /var/lib/apt/lists/
W: Problem unlinking the file /var/cache/apt/pkgcache.bin - RemoveCaches (13: Permission denied)
W: Problem unlinking the file /var/cache/apt/srcpkgcache.bin - RemoveCaches (13: Permission denied)
cohdse182-049@cohdse182049-virtual-machine:~$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu bionic 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
cohdse182-049@cohdse182049-virtual-machine:~$
```

2) If permission is not granted, use sudo apt-get update



```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 02:51
cohdse182-049@cohdse182049-virtual-machine:~$ apt-get update
Reading package lists... Done
E: Could not open lock file /var/lib/apt/lists/lock - open (13: Permission denied)
E: Unable to lock directory /var/lib/apt/lists/
W: Problem unlinking the file /var/cache/apt/pkgcache.bin - RemoveCaches (13: Permission denied)
W: Problem unlinking the file /var/cache/apt/srcpkgcache.bin - RemoveCaches (13: Permission denied)
cohdse182-049@cohdse182049-virtual-machine:~$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:2 http://us.archive.ubuntu.com/ubuntu bionic 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
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 297 not upgraded.
cohdse182-049@cohdse182049-virtual-machine:~$
```

3) To install packages required use apt-get install open-vm-tools-desktop



```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 02:52
cohdse182-049@cohdse182049-virtual-machine:~$ sudo apt-get install open-vm-tools-desktop
Hit:4 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 297 not upgraded.
cohdse182-049@cohdse182049-virtual-machine:~$ sudo apt-get install open-vm-tools
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
ethtool libatkmm-1.6-1v5 libcairomm-1.0-1v5 libdumbnet1 libglibmm-2.4-1v5
libgtkmm-3.0-1v5 libmspack0 libpangomm-1.4-1v5 libsigc++-2.0-0v5
libxmlsec1-openssl open-vm-tools zerofree
Suggested packages:
cloud-init
Recommended packages:
xserver-xorg-input-vmmouse
The following NEW packages will be installed:
ethtool libatkmm-1.6-1v5 libcairomm-1.0-1v5 libdumbnet1 libglibmm-2.4-1v5
libgtkmm-3.0-1v5 libmspack0 libpangomm-1.4-1v5 libsigc++-2.0-0v5
libxmlsec1-openssl open-vm-tools open-vm-tools-desktop zerofree
0 upgraded, 13 newly installed, 0 to remove and 297 not upgraded.
Need to get 2,450 kB of archives.
After this operation, 12.7 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

Player | Activities Terminal Sun 02:52 cohdsse182-049@cohdsse182049-virtual-machine: ~

```
File Edit View Search Terminal Help
ethtool libatkmm-1.6-1v5 libcairomm-1.0-1v5 libdumbnet1 libglibmm-2.4-1v5
libgtkmm-3.0-1v5 libmspack0 libpangomm-1.4-1v5 libsigc++-2.0-0v5
libxmlsec1-openssl open-vm-tools open-vm-tools-desktop zerofree
0 upgraded, 13 newly installed, 0 to remove and 297 not upgraded.
Need to get 2,450 kB of archives.
After this operation, 12.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://222.165.177.102:80/data/00252ece2ebdef88/us.archive.ubuntu.com/ubuntu bionic/main amd64 ethtool amd64 1:4.15-0ubuntu1 [114 kB]
Get:2 http://222.165.177.102:80/data/0025d9ce28be1e1/us.archive.ubuntu.com/ubuntu bionic/main amd64 libsigc++-2.0-0v5 amd64 2.10.0-2 [10.9 kB]
Get:3 http://222.165.177.102:80/data/002545cef7c2ccc/us.archive.ubuntu.com/ubuntu bionic/main amd64 libglibmm-2.4-1v5 amd64 2.56.0-1 [516 kB]
Get:4 http://222.165.177.102:80/data/002545cef7c2ccc/us.archive.ubuntu.com/ubuntu bionic/main amd64 libatkmm-1.6-1v5 amd64 1.12.2-3 [37.1 kB]
Get:5 http://222.165.177.102:80/data/0025d0cecc1b85b/us.archive.ubuntu.com/ubuntu bionic/main amd64 libdumbnet1 amd64 1.12-7build1 [25.0 kB]
Get:6 http://222.165.177.102:80/data/0025d4ce62c4322f/us.archive.ubuntu.com/ubuntu bionic/main amd64 libpangomm-1.4-1v5 amd64 2.40.1-4 [42.5 kB]
Get:7 http://222.165.177.102:80/data/0025bceee1c56e54/us.archive.ubuntu.com/ubuntu bionic/main amd64 libgtkmm-3.0-1v5 amd64 3.22.2-2 [850 kB]
Get:8 http://222.165.177.102:80/data/0025d1cecbcc779/us.archive.ubuntu.com/ubuntu bionic/main amd64 libxmlsec1-updates/amd64 0.6-3ubuntu0.2 [37.4 kB]
Get:9 http://222.165.177.102:80/data/002564ce2dc73cd5/us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libmspack0 amd64 0.6-3ubuntu0.2 [37.4 kB]
Get:10 http://222.165.177.102:80/data/00250dceac9c9b351/us.archive.ubuntu.com/ubuntu bionic/main amd64 libxmlsec1-openssl amd64 1.2.25-1build1 [73.6 kB]
69% [Connecting to us.archive.ubuntu.co]
```

Windows Ink Workspace 1:22 PM 11/18/2018

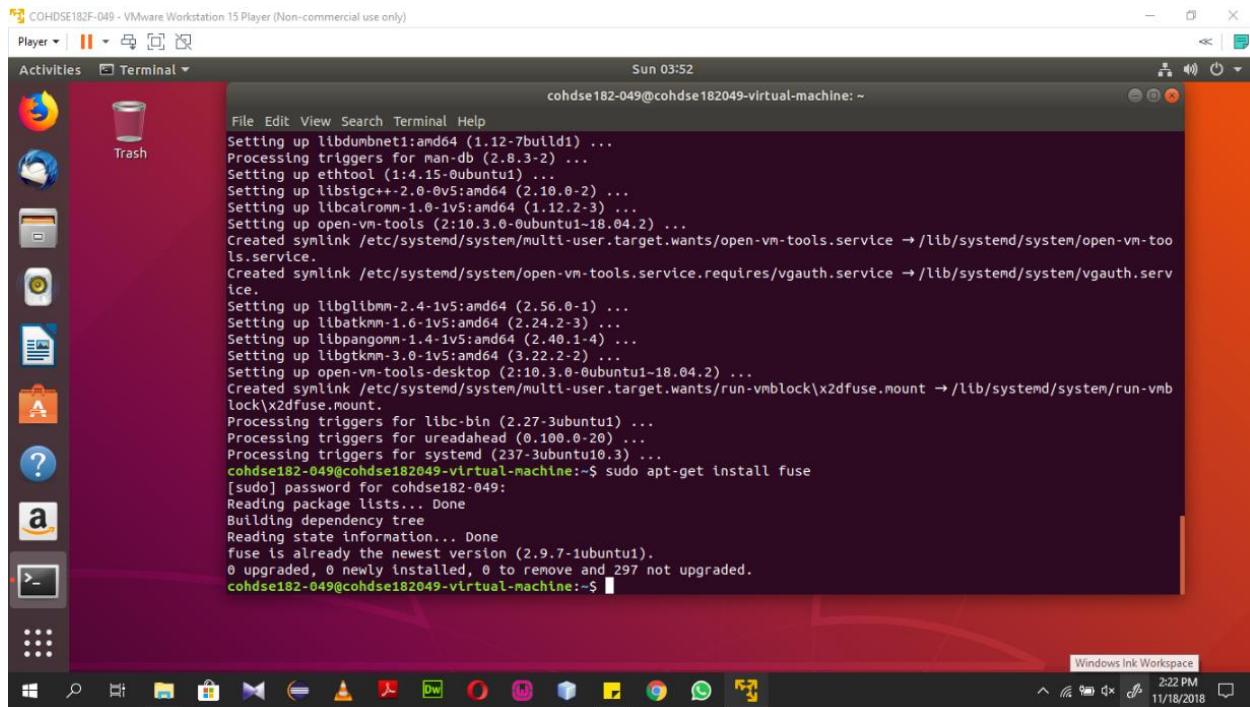
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

Player | Activities Terminal Sun 03:51 cohdsse182-049@cohdsse182049-virtual-machine: ~

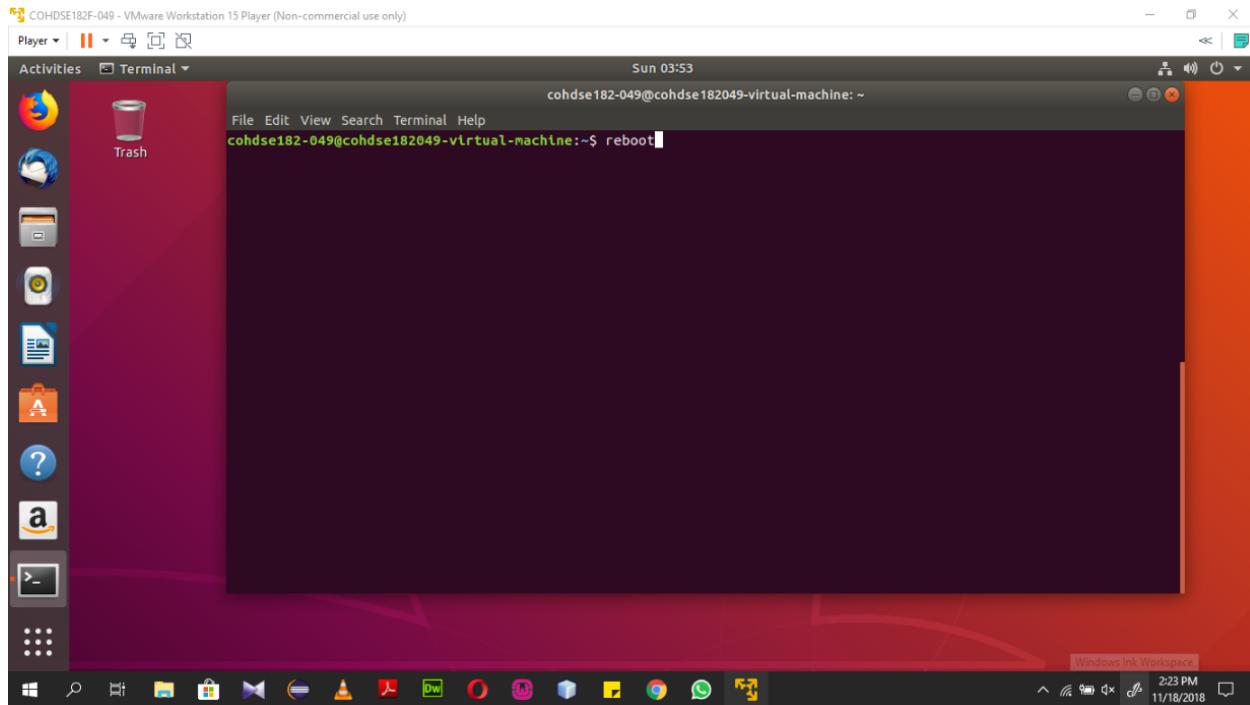
```
File Edit View Search Terminal Help
Preparing to unpack .../10-open-vm-tools_2%3a10.3.0-0ubuntu1-18.04.2_amd64.deb ...
Unpacking open-vm-tools (2:10.3.0-0ubuntu1-18.04.2) ...
Selecting previously unselected package open-vm-tools-desktop.
Preparing to unpack .../11-open-vm-tools-desktop_2%3a10.3.0-0ubuntu1-18.04.2_amd64.deb ...
Unpacking open-vm-tools-desktop (2:10.3.0-0ubuntu1-18.04.2) ...
Selecting previously unselected package zerofree.
Preparing to unpack .../12-zerofree_1.0.4-1_amd64.deb ...
Unpacking zerofree (1.0.4-1) ...
Setting up zerofree (1.0.4-1) ...
Setting up libxmlsec1-openssl:amd64 (1.2.25-1build1) ...
Setting up libmspack0:amd64 (0.6-3ubuntu0.2) ...
Processing triggers for ureadahead (0.100.0-20) ...
Processing triggers for libc-bin (2.27-3ubuntu1) ...
Processing triggers for systemd (237-3ubuntu0.3) ...
Setting up libdumbnet1:amd64 (1.12-7build1) ...
Processing triggers for man-db (2.8.3-2) ...
Setting up ethtool (1:4.15-0ubuntu1) ...
Setting up libsigc++-2.0-0v5:amd64 (2.10.0-2) ...
Setting up libatkmm-1.6-1v5:amd64 (1.12.2-3) ...
Setting up open-vm-tools (2:10.3.0-0ubuntu1-18.04.2) ...
Setting up symlink /etc/systemd/system/multi-user.target.wants/open-vm-tools.service → /lib/systemd/system/open-vm-tools.service.
Created symlink /etc/systemd/system/open-vm-tools.service.requires/vgauth.service → /lib/systemd/system/vgauth.service.
Setting up libglibmm-2.4-1v5:amd64 (2.56.0-1) ...
Setting up libatkmm-1.6-1v5:amd64 (2.24.2-3) ...
Setting up libpangomm-1.4-1v5:amd64 (2.40.1-4) ...
Setting up libgtkmm-3.0-1v5:amd64 (3.22.2-2) ...
Setting up open-vm-tools-desktop (2:10.3.0-0ubuntu1-18.04.2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/run-vmblock|x2dfuse.mount → /lib/systemd/system/run-vmblock|x2dfuse.mount.
Processing triggers for libc-bin (2.27-3ubuntu1) ...
Processing triggers for ureadahead (0.100.0-20) ...
Processing triggers for systemd (237-3ubuntu0.3) ...
Processing triggers for vgauth.service (2.10.0-2) ...
 cohdsse182-049@cohdsse182049-virtual-machine: ~
```

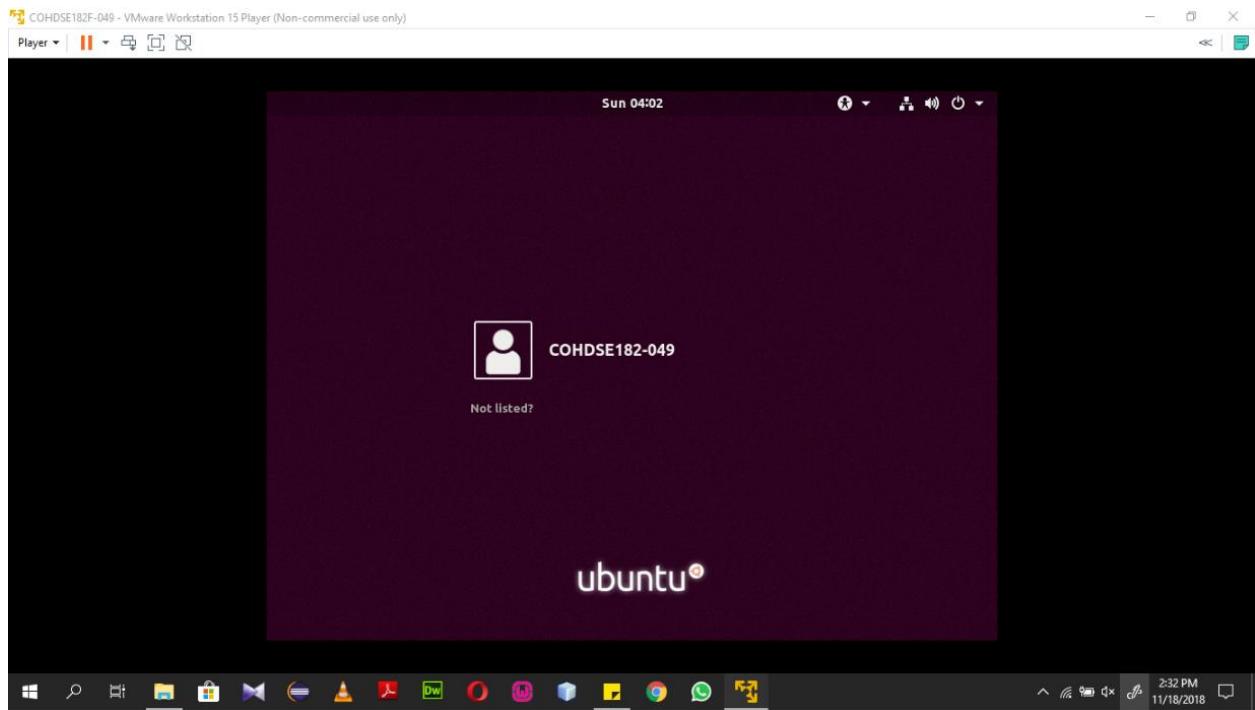
Windows Ink Workspace 2:21 PM 11/18/2018

4)To enlarge the screen we use sudo apt-get install fuse

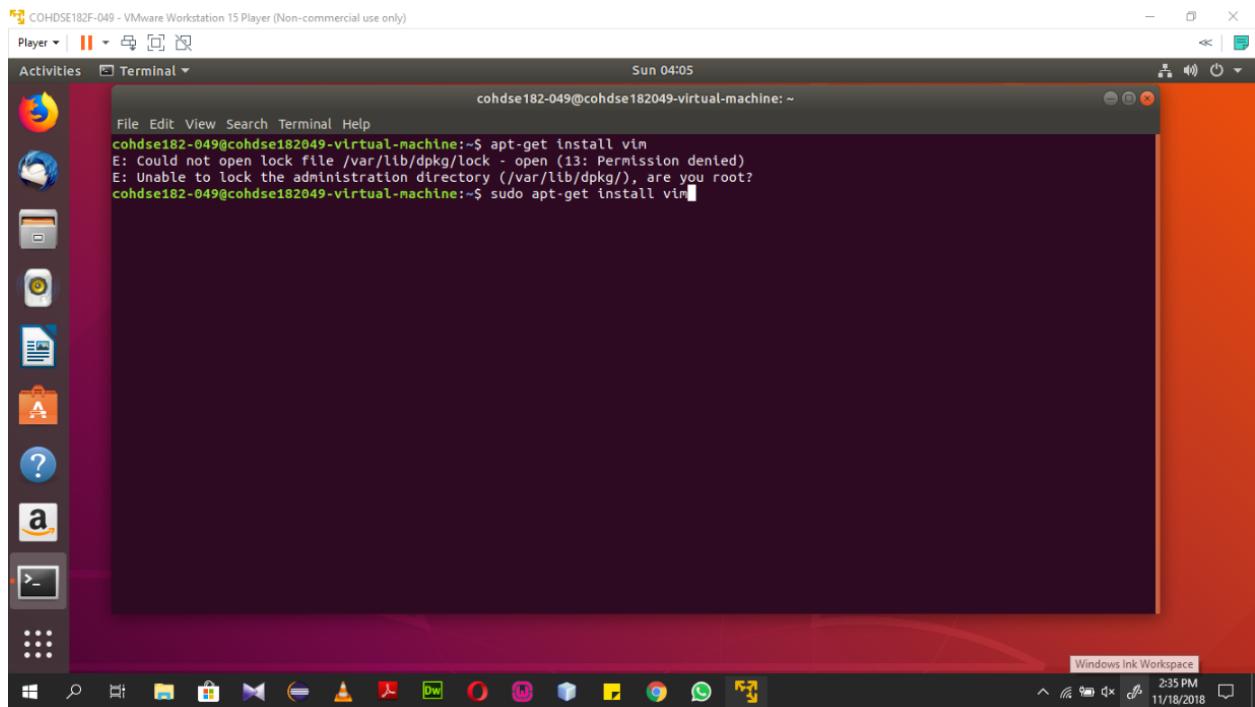


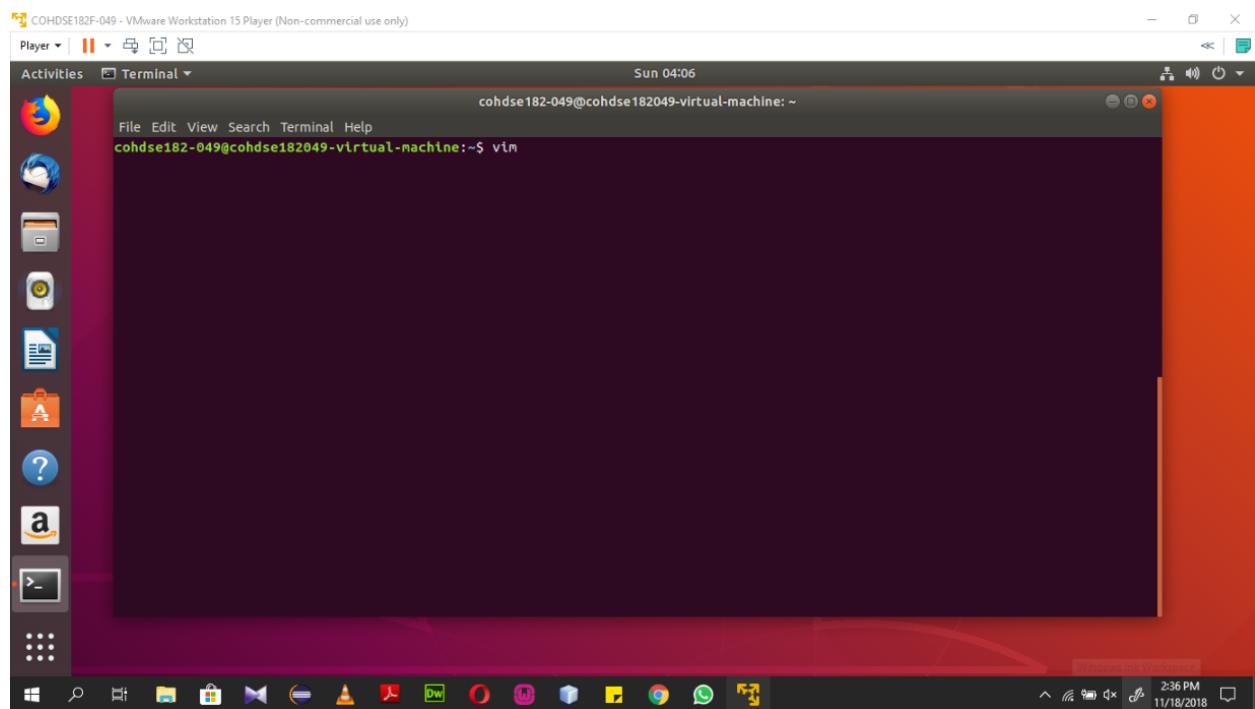
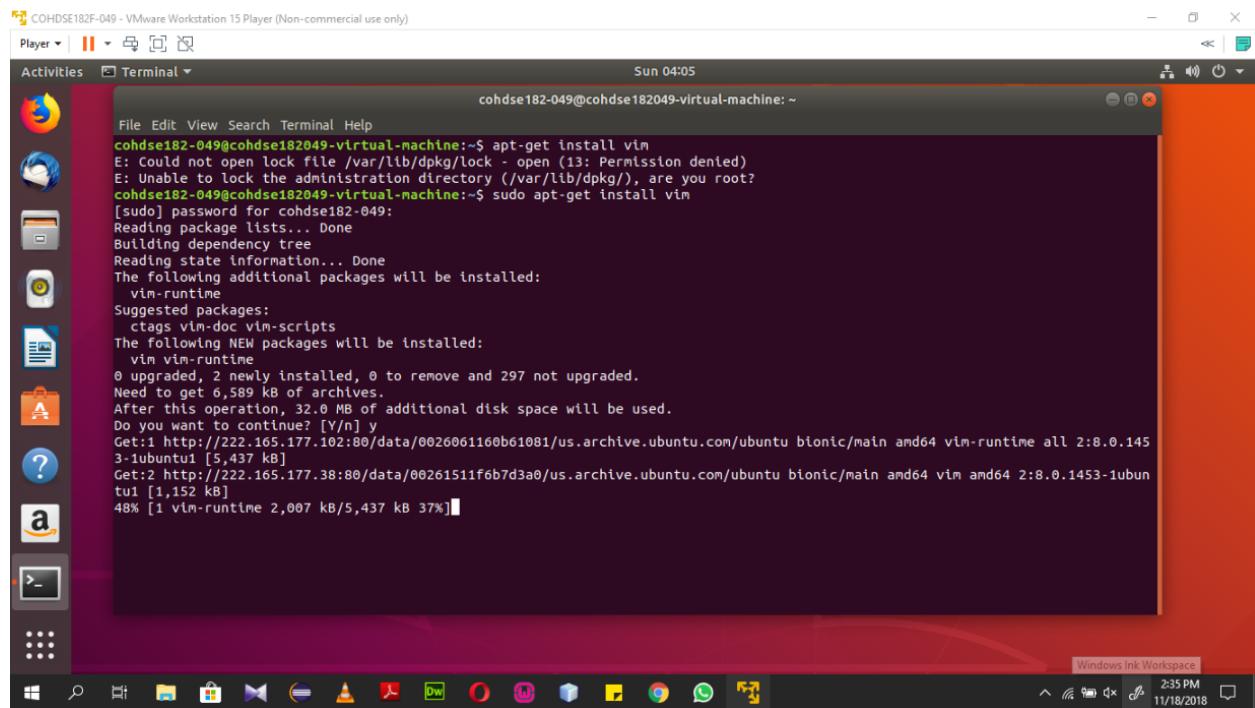
5)After fusing,need to reboot and restart the virtual machine using the command reboot.

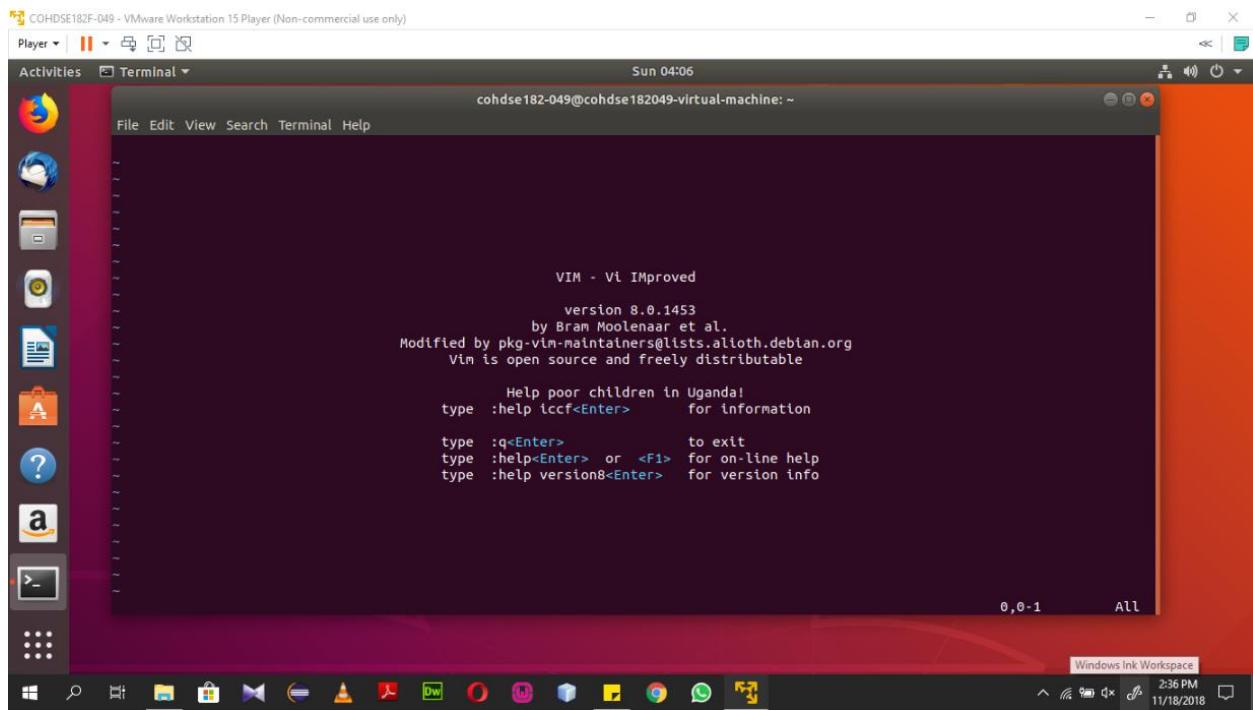




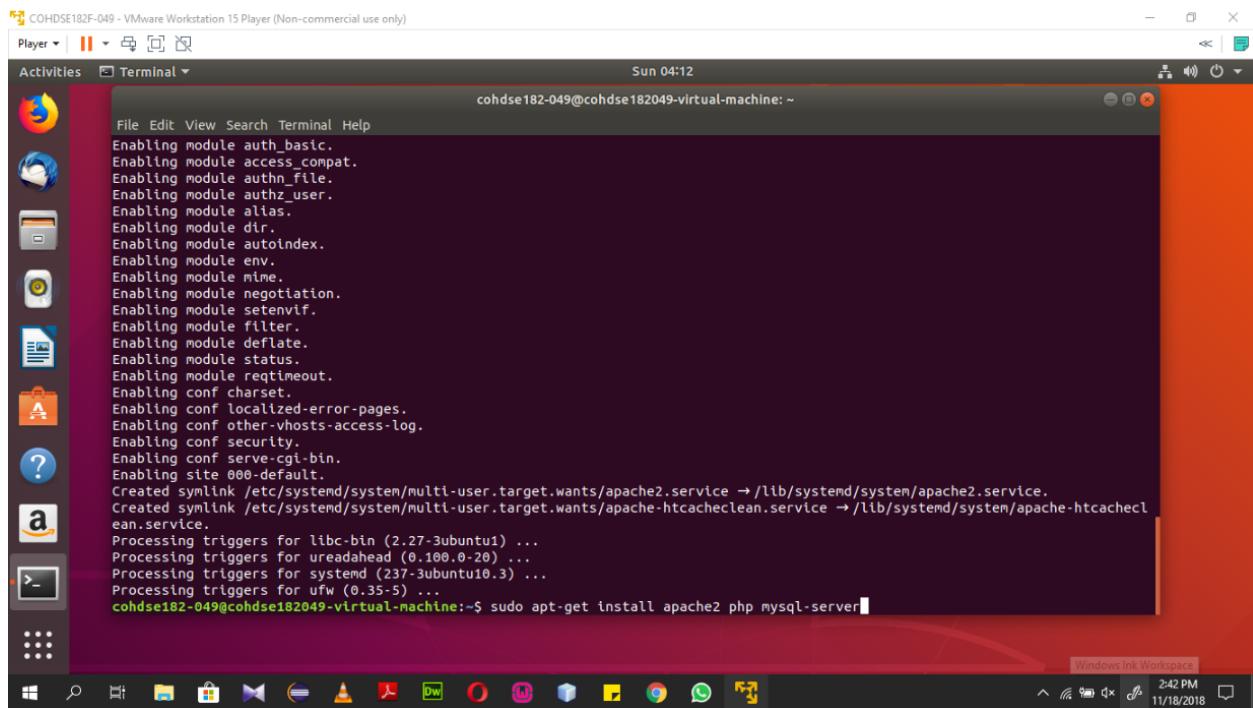
6) To install vim editor we have to use apt-get install vim







7)To install packages Apache2 ,php and mysql have to use sudo apt-get install apache2 php mysql-server

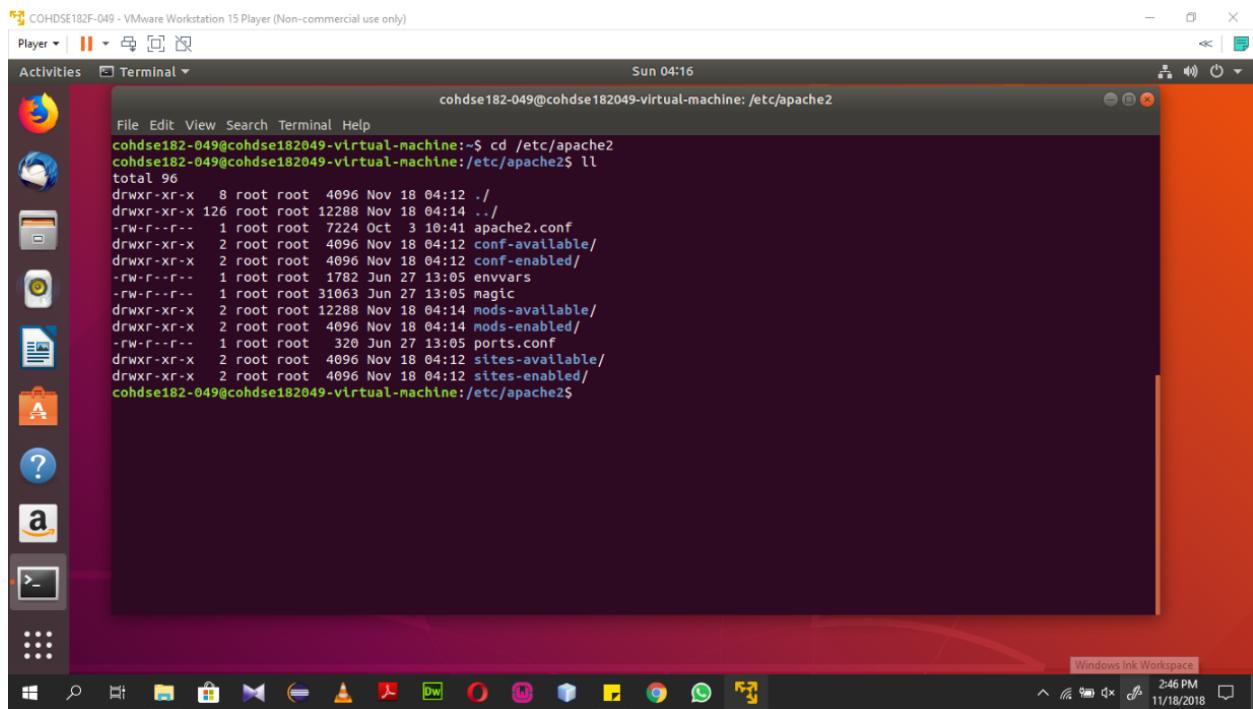


8) To visualize all the files and directories in etc directory can use ls /etc

```
cohdse182-049@cohdse182049-virtual-machine:~$ ls /etc
acpi           dictionaries-common   kernel-img.conf    opt             services
adduser.conf   dpkg                kerneloops.conf   os-release      shadow
alternatives   drirc               ldap              PackageKit     shadow-
anacrontab    enacs               ld.so.cache      pam.conf       shells
apache2        environment         ld.so.conf      pam.d          skel
apg.conf       firefox             ld.so.conf.d    papersize     speech-dispatcher
apm            fonts               legal             passwd        ssh
apparmor       fstab               libao.conf      passwd-       ssl
apparmor.d     fuse.conf          libaudit.conf   pm             subgid
apport         fwupd               libblockdev    pmcma         subgid-
apt            gai.conf            libnl-3          perl          subuid
avahi          gdb                libpaper.d     pkı           subuid-
bash.bashrc    geoctue            libreoffice    pm            sudoers
bash_completion ghostscript        lintianrc     pmklt-1      sudoers.d
bash_completion.d glvnd              locale.alias   popularity-contest.conf sysctl.conf
bindnfsport.blacklist gnome             localtime    ppp           systemd
btlnfmt.d      groff              logcheck       profile       terminfo
bluetooth     group              login.defs     protocols     thermal
brlapi.key     group-             logrotate.conf pulse          thunderbird
brltty         grub.d             logrotate.d    python2.7    timezone
brltty.conf    gshadow            lsb-release    python3       tmpfiles.d
ca-certificates gshadow-          machine-id   python3.6    ucf.conf
ca-certificates.conf gss               magic          rc0.d         udev
calendar      gtk-2.0            magic.mime    rc1.d         udisks2
chatscripts    gtk-3.0            mailcap       rc2.d         ufw
console-setup  hdparm.conf        mailcap       rcupdate.d   updatedb.conf
```

```
cohdse182-049@cohdse182049-virtual-machine:~$ ls -la /
total 108
drwxr-xr-x  24 root root  4096 Nov 18 02:28 .
drwxr-xr-x  24 root root  4096 Nov 18 02:28 ..
drwxr-xr-x  2 root root  4096 Nov 18 02:28 bin
drwxr-xr-x  3 root root  4096 Nov 18 02:29 boot
drwxrwxr-x  2 root root  4096 Nov 18 02:17 cdrom
drwxr-xr-x  18 root root  3960 Nov 18 03:54 dev
drwxr-xr-x 126 root root 12288 Nov 18 04:14 etc
drwxr-xr-x  4 root root  4096 Nov 18 02:21 home
lrwxrwxrwx  1 root root   33 Nov 18 02:28 initrd.img -> boot/initrd.img-4.15.0-29-generic
lrwxrwxrwx  1 root root   33 Nov 18 02:14 initrd.img.old -> boot/initrd.img-4.15.0-29-generic
drwxr-xr-x  21 root root  4096 Nov 18 02:28 lib
drwxr-xr-x  2 root root  4096 Jul 24 23:04 lib64
drwxr----- 2 root root 16384 Nov 18 02:14 lost+found
drwxr-xr-x  2 root root  4096 Jul 24 23:03 media
drwxr-xr-x  2 root root  4096 Jul 24 23:03 mnt
drwxr-xr-x  2 root root  4096 Jul 24 23:03 opt
dr-xr-xr-x  277 root root    0 Nov 18 03:54 proc
drwxr----- 3 root root  4096 Jul 24 23:12 root
drwxr-xr-x  31 root root  860 Nov 18 04:14 run
drwxr-xr-x  2 root root 12288 Nov 18 02:52 sbin
drwxr-xr-x  10 root root  4096 Nov 18 02:31 snap
drwxr-xr-x  2 root root  4096 Jul 24 23:03 srv
dr-xr-xr-x  13 root root    0 Nov 18 03:54 sys
drwxrwxrwt  17 root root  4096 Nov 18 04:14 tmp
drwxr-xr-x  10 root root  4096 Jul 24 23:03 usr
drwxr-xr-x  15 root root  4096 Nov 18 04:12 var
lrwxrwxrwx  1 root root  30 Nov 18 02:28 vmlinuz -> boot/vmlinuz-4.15.0-29-generic
```

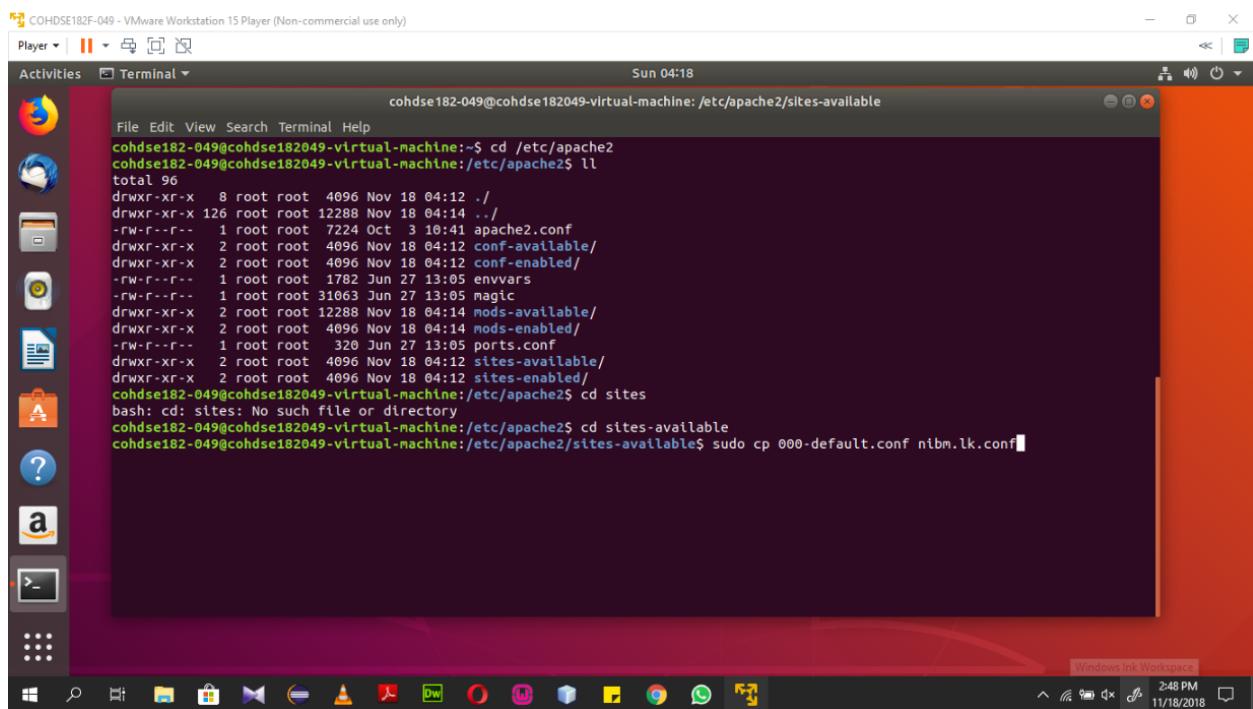
9)To move apache2 folder use cd /etc/apache2



```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 04:16
File Edit View Search Terminal Help
cohdsse182-049@cohdsse182049-virtual-machine:~$ cd /etc/apache2
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ ll
total 96
drwxr-xr-x  8 root root 4096 Nov 18 04:12 .
drwxr-xr-x 126 root root 12288 Nov 18 04:14 ..
-rw-r--r--  1 root root 7224 Oct  3 10:41 apache2.conf
drwxr-xr-x  2 root root 4096 Nov 18 04:12 conf-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:12 conf-enabled/
-rw-r--r--  1 root root 1782 Jun 27 13:05 envvars
-rw-r--r--  1 root root 31063 Jun 27 13:05 magic
drwxr-xr-x  2 root root 12288 Nov 18 04:14 mods-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:14 mods-enabled/
-rw-r--r--  1 root root 320 Jun 27 13:05 ports.conf
drwxr-xr-x  2 root root 4096 Nov 18 04:12 sites-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:12 sites-enabled/
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$
```

10)To move sites -available folder need to use cd sites-available

11)To copy our site for configuration need to use sudo cp 000-default.conf sitename.conf



```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 04:18
File Edit View Search Terminal Help
cohdsse182-049@cohdsse182049-virtual-machine:~$ cd /etc/apache2
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ ll
total 96
drwxr-xr-x  8 root root 4096 Nov 18 04:12 .
drwxr-xr-x 126 root root 12288 Nov 18 04:14 ..
-rw-r--r--  1 root root 7224 Oct  3 10:41 apache2.conf
drwxr-xr-x  2 root root 4096 Nov 18 04:12 conf-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:12 conf-enabled/
-rw-r--r--  1 root root 1782 Jun 27 13:05 envvars
-rw-r--r--  1 root root 31063 Jun 27 13:05 magic
drwxr-xr-x  2 root root 12288 Nov 18 04:14 mods-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:14 mods-enabled/
-rw-r--r--  1 root root 320 Jun 27 13:05 ports.conf
drwxr-xr-x  2 root root 4096 Nov 18 04:12 sites-available/
drwxr-xr-x  2 root root 4096 Nov 18 04:12 sites-enabled/
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ cd sites
bash: cd: sites: No such file or directory
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ cd sites-available
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ sudo cp 000-default.conf nimb.lk.conf
```

13)Use cd to move to the our normal user

14)sudo adduser --home /home/nibm --disabled-password --shell /bin/bash nibm use to disable site password to confirm the privacy.

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)". The terminal session starts with the user "cohdsse182-049" at the prompt. The user runs several commands to create a new user account:

```
File Edit View Terminal Help
drwxr-xr-x  2 root root  4096 Nov 18 04:12 conf-enabled/
-rw-r--r--  1 root root  1782 Jun 27 13:05 envvars
-rw-r--r--  1 root root 31063 Jun 27 13:05 magic
drwxr-xr-x  2 root root 12288 Nov 18 04:14 mods-available/
drwxr-xr-x  2 root root  4096 Nov 18 04:14 mods-enabled/
-rw-r--r--  1 root root   320 Jun 27 13:05 ports.conf
drwxr-xr-x  2 root root  4096 Nov 18 04:12 sites-available/
drwxr-xr-x  2 root root  4096 Nov 18 04:12 sites-enabled/
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ cd sites
bash: cd: sites: No such file or directory
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2$ cd sites-available
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2/sites-available$ sudo cp 000-default.conf nibm.lk.conf
cohdsse182-049@cohdsse182049-virtual-machine:/etc/apache2/sites-available$ cd
cohdsse182-049@cohdsse182049-virtual-machine:~$ sudo adduser --home /home/nibm --disabled-password --shell /bin/bash nibm
Adding user 'nibm'...
Adding new group 'nibm' (1001) ...
Adding new user 'nibm' (1001) with group 'nibm' ...
Creating home directory '/home/nibm' ...
Copying files from '/etc/skel' ...
Changing the user information for nibm
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] y
cohdsse182-049@cohdsse182049-virtual-machine:~$ sudo vim /etc/passwd
cohdsse182-049@cohdsse182049-virtual-machine:~$
```

The terminal window is part of a desktop environment with a taskbar at the bottom containing various application icons. The system tray shows the date and time as "11/18/2018 2:51 PM".

15)To move nibm root first use sudo su and then use su - nibm

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)". The terminal session starts with the user "cohdsse182-049" at the prompt. The user runs the command "ls -l /home" to list the contents of the /home directory, which shows a single user account named "nibm". The user then runs "sudo su" to switch to the root user, but receives an error message: "su: invalid option -- 'n'". The user then runs "su - nibm" to switch to the "nibm" user account successfully. The terminal window is part of a desktop environment with a taskbar at the bottom containing various application icons. The system tray shows the date and time as "11/18/2018 2:53 PM".

```
File Edit View Terminal Help
total 24
drwxr-xr-x 15 cohdsse182-049 cohdsse182-049 4096 Nov 18 04:22 cohdsse182-049
drwx----- 2 root      root      16384 Nov 18 02:14 lost+found
drwxr-xr-x  2 nibm     nibm     4096 Nov 18 04:19 nibm
cohdsse182-049@cohdsse182049-virtual-machine:~$ sudo su
root@cohdsse182049-virtual-machine:/home/cohdsse182-049# su - nibm
su: invalid option -- 'n'
Usage: su [options] [LOGIN]

Options:
  -c, --command COMMAND      pass COMMAND to the invoked shell
  -h, --help                  display this help message and exit
  -, -l, --login              make the shell a login shell
  -n, -P,
  --preserve-environment     do not reset environment variables, and
                             keep the same shell
  -s, --shell SHELL          use SHELL instead of the default in passwd

root@cohdsse182049-virtual-machine:/home/cohdsse182-049# su - nibm
nibm@cohdsse182049-virtual-machine:~$
```

COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

Player Activities Terminal Sun 04:25

nibm@cohdse182049-virtual-machine: ~/web

```
File Edit View Search Terminal Help
su: invalid option -- 'n'
Usage: su [options] [LOGIN]

Options:
  -c, --command COMMAND      pass COMMAND to the invoked shell
  -h, --help                  display this help message and exit
  -, -l, --login              make the shell a login shell
  -n, -p,
  --preserve-environment     do not reset environment variables, and
                             keep the same shell
  -s, --shell SHELL           use SHELL instead of the default in passwd

root@cohdse182049-virtual-machine:/home/cohdse182-049# su - nibm
nibm@cohdse182049-virtual-machine:~$ whoami
nibm
nibm@cohdse182049-virtual-machine:~$ pwd
/home/nibm
nibm@cohdse182049-virtual-machine:~$ mkdir web
nibm@cohdse182049-virtual-machine:~$ ll
total 36
drwxr-xr-x 3 nibm nibm 4096 Nov 18 04:24 .
drwxr-xr-x 5 root root 4096 Nov 18 04:19 ../
-rw-r--r-- 1 nibm nibm 220 Nov 18 04:19 .bash_logout
-rw-r--r-- 1 nibm nibm 3771 Nov 18 04:19 .bashrc
-rw-r--r-- 1 nibm nibm 8980 Nov 18 04:19 examples.desktop
-rw-r--r-- 1 nibm nibm 807 Nov 18 04:19 .profile
drwxrwxr-x 2 nibm nibm 4096 Nov 18 04:24 web/
nibm@cohdse182049-virtual-machine:~$ cd web
nibm@cohdse182049-virtual-machine:~/web$
```

Windows Ink Workspace 2:55 PM 11/18/2018

16)With vim we can make the html file that we need to host in the server.

COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

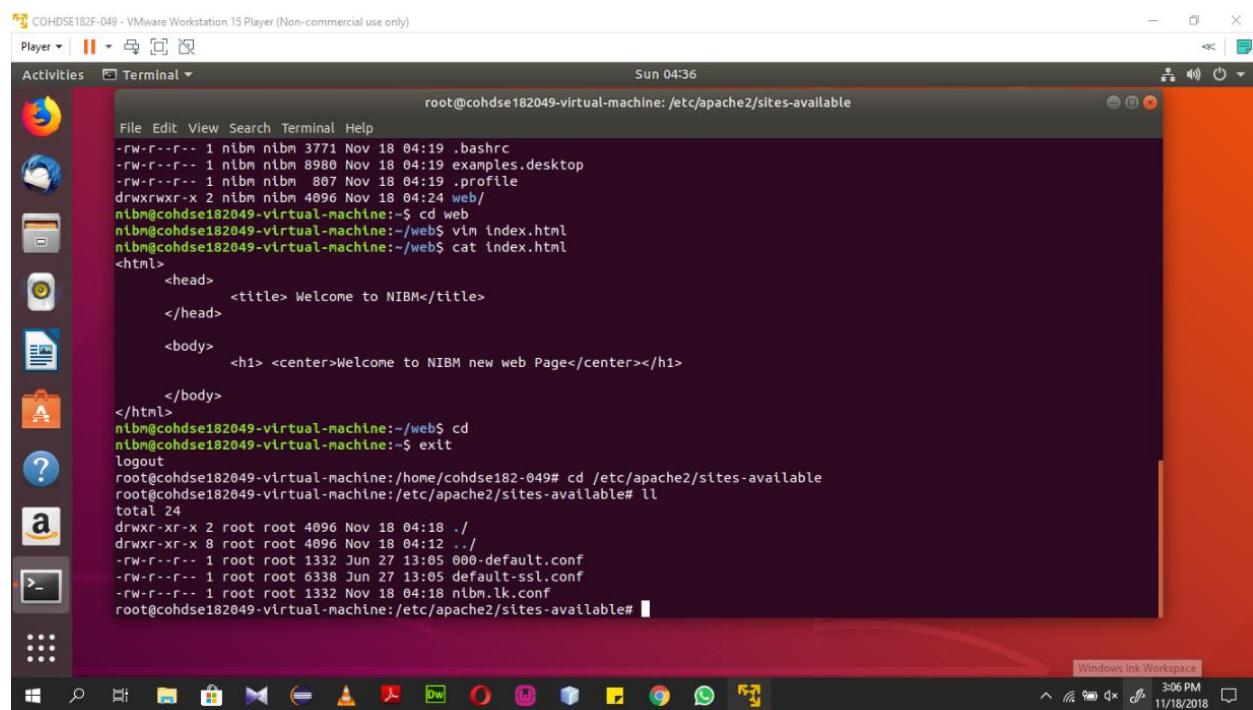
Player Activities Terminal Sun 04:34

nibm@cohdse182049-virtual-machine: ~/web

```
<html>
  <head>
    <title> Welcome to NIBM</title>
  </head>
  <body>
    <h1> <center>Welcome to NIBM new web Page</center></h1>
  </body>
</html>
```

Windows Ink Workspace 3:04 PM 11/18/2018

17)To exit from the nibm root use exit command.

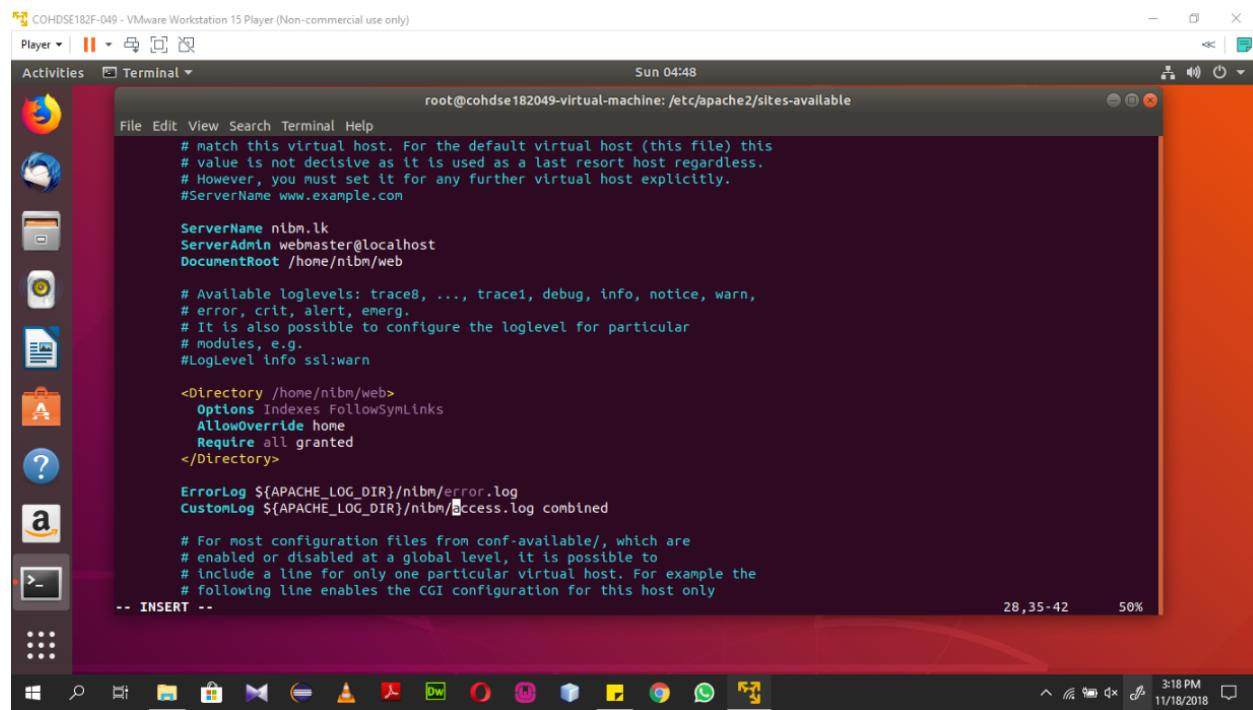


COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

root@cohdse182049-virtual-machine: /etc/apache2/sites-available

```
-rw-r--r-- 1 nibm nibm 3771 Nov 18 04:19 .bashrc
-rw-r--r-- 1 nibm nibm 8980 Nov 18 04:19 examples.desktop
-rw-r--r-- 1 nibm nibm 807 Nov 18 04:19 .profile
drwxrwxr-x 2 nibm nibm 4096 Nov 18 04:24 web/
nibm@cohdse182049-virtual-machine:~$ cd web
nibm@cohdse182049-virtual-machine:~/web$ vim index.html
nibm@cohdse182049-virtual-machine:~/web$ cat index.html
<html>
    <head>
        <title> Welcome to NIBM</title>
    </head>
    <body>
        <h1> <center>Welcome to NIBM new web Page</center></h1>
    </body>
</html>
nibm@cohdse182049-virtual-machine:~/web$ cd
nibm@cohdse182049-virtual-machine:~$ exit
logout
root@cohdse182049-virtual-machine:/home/cohdse182-049# cd /etc/apache2/sites-available
root@cohdse182049-virtual-machine:/etc/apache2/sites-available# ll
total 24
drwxr-xr-x 2 root root 4096 Nov 18 04:18 .
drwxr-xr-x 8 root root 4096 Nov 18 04:12 ../
-rw-r--r-- 1 root root 1332 Jun 27 13:05 000-default.conf
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1332 Nov 18 04:18 nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2/sites-available#
```

17)To open the virtual host cd /etc/apache2/sites-available and vim nibm.lk.conf commands should be used.



COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

root@cohdse182049-virtual-machine: /etc/apache2/sites-available

```
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com

ServerName nibm.lk
ServerAdmin webmaster@localhost
DocumentRoot /home/nibm/web

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

<Directory /home/nibm/web>
    Options Indexes FollowSymLinks
    AllowOverride All
    Require all granted
</Directory>

ErrorLog ${APACHE_LOG_DIR}/nibm/error.log
CustomLog ${APACHE_LOG_DIR}/nibm/access.log combined

# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
-- INSERT --
```

```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 04:50
root@cohdse182049-virtual-machine: /var/log/apache2
File Edit View Search Terminal Help
nibm@cohdse182049-virtual-machine:~$ exit
logout
root@cohdse182049-virtual-machine:/home/cohdse182-049# cd /etc/apache2/sites-available
root@cohdse182049-virtual-machine:/etc/apache2/sites-available# ll
total 24
drwxr-xr-x 2 root root 4096 Nov 18 04:18 .
drwxr-xr-x 8 root root 4096 Nov 18 04:12 ..
-rw-r--r-- 1 root root 1332 Jun 27 13:05 000-default.conf
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1332 Nov 18 04:18 nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2/sites-available# vim nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2/sites-available# cd /var/log/apache2
root@cohdse182049-virtual-machine:/var/log/apache2# ll
total 12
drwxr-x--- 2 root adm 4096 Nov 18 04:12 .
drwxrwxr-x 13 root syslog 4096 Nov 18 04:14 ../
-rw-r----- 1 root adm 0 Nov 18 04:12 access.log
-rw-r----- 1 root adm 994 Nov 18 04:14 error.log
-rw-r----- 1 root adm 0 Nov 18 04:12 other_vhosts.access.log
root@cohdse182049-virtual-machine:/var/log/apache2# mkdir nibm
root@cohdse182049-virtual-machine:/var/log/apache2# ll
total 16
drwxr-x--- 3 root adm 4096 Nov 18 04:50 .
drwxrwxr-x 13 root syslog 4096 Nov 18 04:14 ../
-rw-r----- 1 root adm 0 Nov 18 04:12 access.log
-rw-r----- 1 root adm 994 Nov 18 04:14 error.log
drwxr-xr-x 2 root root 4096 Nov 18 04:50 nibm/
-rw-r----- 1 root adm 0 Nov 18 04:12 other_vhosts.access.log
root@cohdse182049-virtual-machine:/var/log/apache2#
```

```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player Activities Terminal Sun 04:52
root@cohdse182049-virtual-machine:/var/log/apache2#
File Edit View Search Terminal Help
root@cohdse182049-virtual-machine:/var/log/apache2# chgrp nibm nibm
root@cohdse182049-virtual-machine:/var/log/apache2# ll
total 16
drwxr-x--- 3 root adm 4096 Nov 18 04:50 .
drwxrwxr-x 13 root syslog 4096 Nov 18 04:14 ../
-rw-r----- 1 root adm 0 Nov 18 04:12 access.log
-rw-r----- 1 root adm 994 Nov 18 04:14 error.log
drwxr-xr-x 2 root nibm 4096 Nov 18 04:50 nibm/
-rw-r----- 1 root adm 0 Nov 18 04:12 other_vhosts.access.log
root@cohdse182049-virtual-machine:/var/log/apache2# cd /etc/apache2
root@cohdse182049-virtual-machine:/etc/apache2# ll sites-available
sites-available:
total 24
drwxr-xr-x 2 root root 4096 Nov 18 04:49 .
drwxr-xr-x 8 root root 4096 Nov 18 04:12 ..
-rw-r--r-- 1 root root 1332 Jun 27 13:05 000-default.conf
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1535 Nov 18 04:49 nibm.lk.conf
Enabling site nibm.lk.
To activate the new configuration, you need to run:
    systemctl reload apache2
root@cohdse182049-virtual-machine:/etc/apache2#
```

```
File Edit View Search Terminal Help
lrwxrwxrwx 1 root root 35 Nov 18 04:12 000-default.conf -> ../sites-available/000-default.conf
root@cohdse182049-virtual-machine:/etc/apache2# a2ensite nibm.lk
Enabling site nibm.lk.
To activate the new configuration, you need to run:
 _systemctl reload apache2
root@cohdse182049-virtual-machine:/etc/apache2# /etc/init.d/apache2
Usage: apache2 {start|stop|graceful-stop|restart|reload|force-reload}
root@cohdse182049-virtual-machine:/etc/apache2# /etc/init.d/apache2 restart
[....] Restarting apache2 (via systemctl): apache2.serviceJob for apache2.service failed because the control process exited wi
th error code.
See "systemctl status apache2.service" and "journalctl -xe" for details.
 _failed!
root@cohdse182049-virtual-machine:/etc/apache2# ll sites-
sites-available:
total 24
drwxr-xr-x 2 root root 4096 Nov 18 04:49 .
drwxr-xr-x 8 root root 4096 Nov 18 04:12 ..
-rw-r--r-- 1 root root 1332 Jun 27 13:05 000-default.conf
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1535 Nov 18 04:49 nibm.lk.conf

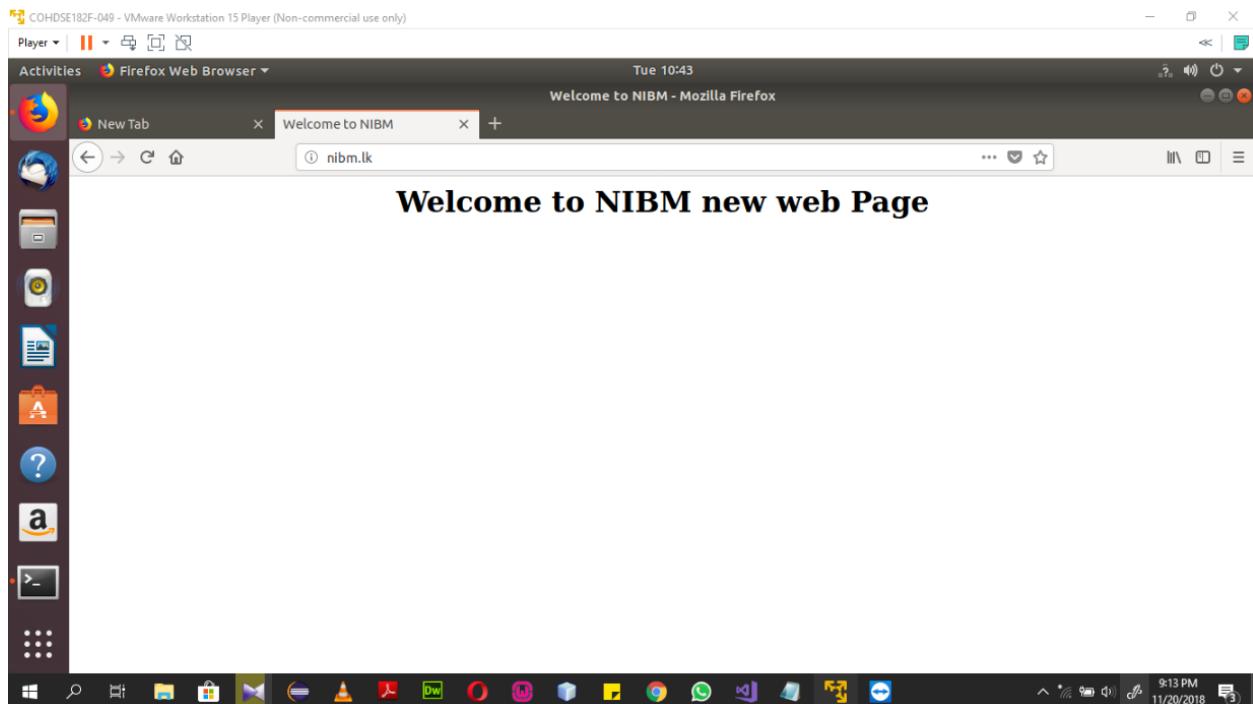
sites-enabled:
total 8
drwxr-xr-x 2 root root 4096 Nov 18 04:52 .
drwxr-xr-x 8 root root 4096 Nov 18 04:12 ..
lrwxrwxrwx 1 root root 35 Nov 18 04:12 000-default.conf -> ../sites-available/000-default.conf
lrwxrwxrwx 1 root root 31 Nov 18 04:52 nibm.lk.conf -> ../sites-available/nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2# vim /etc/hosts
root@cohdse182049-virtual-machine:/etc/apache2#
```

```
File Edit View Search Terminal Help  
127.0.0.1      localhost nibm.lk  
127.0.1.1      cohdsse182049-virtual-machine
```

```
# The following lines are desirable for IPv6 capable hosts
::1      ip6-localhost ip6-loopback
fe00::0  ip6-mcastprefix
ff00::1  ip6-allnodes
ff02::1  ip6-allrouters
~
```

```
COHDSE182F-049 - VMware Workstation 15 Player (Non-commercial use only)
Player | ||| Activities Terminal ▾
Activities Terminal ▾
Tue 10:34
root@cohdse182049-virtual-machine:/etc/apache2
File Edit View Search Terminal Help
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1521 Nov 20 10:31 nibm.lk.conf
sites-enabled:
total 8
drwxr-xr-x 2 root root 4096 Nov 20 08:50 .
drwxr-xr-x 8 root root 4096 Nov 20 08:42 ..
lrwxrwxrwx 1 root root 35 Nov 20 08:42 000-default.conf -> ../sites-available/000-default.conf
lrwxrwxrwx 1 root root 31 Nov 20 08:50 nibm.lk.conf -> ../sites-available/nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2# a2ensite nibm.lk
Site nibm.lk already enabled
root@cohdse182049-virtual-machine:/etc/apache2# /etc/init.d/apache2
Usage: apache2 {start|stop|graceful-stop|restart|reload|force-reload}
root@cohdse182049-virtual-machine:/etc/apache2# /etc/init.d/apache2 restart
[ ok ] Restarting apache2 (via systemctl): apache2.service.
root@cohdse182049-virtual-machine:/etc/apache2# ll sites-
sites-available:
total 24
drwxr-xr-x 2 root root 4096 Nov 20 10:31 .
drwxr-xr-x 8 root root 4096 Nov 20 08:42 ..
-rw-r--r-- 1 root root 1332 Jun 27 13:05 000-default.conf
-rw-r--r-- 1 root root 6338 Jun 27 13:05 default-ssl.conf
-rw-r--r-- 1 root root 1521 Nov 20 10:31 nibm.lk.conf
sites-enabled:
total 8
drwxr-xr-x 2 root root 4096 Nov 20 08:50 .
drwxr-xr-x 8 root root 4096 Nov 20 08:42 ..
lrwxrwxrwx 1 root root 35 Nov 20 08:42 000-default.conf -> ../sites-available/000-default.conf
lrwxrwxrwx 1 root root 31 Nov 20 08:50 nibm.lk.conf -> ../sites-available/nibm.lk.conf
root@cohdse182049-virtual-machine:/etc/apache2# vim /etc/hosts
root@cohdse182049-virtual-machine:/etc/apache2#
```

18)With all the above steps we can host the web page as given below



MySQL Along with a PHP login form

1)First need to form the HTML login page

2)Then form the php form to connect html form with MySQL database.

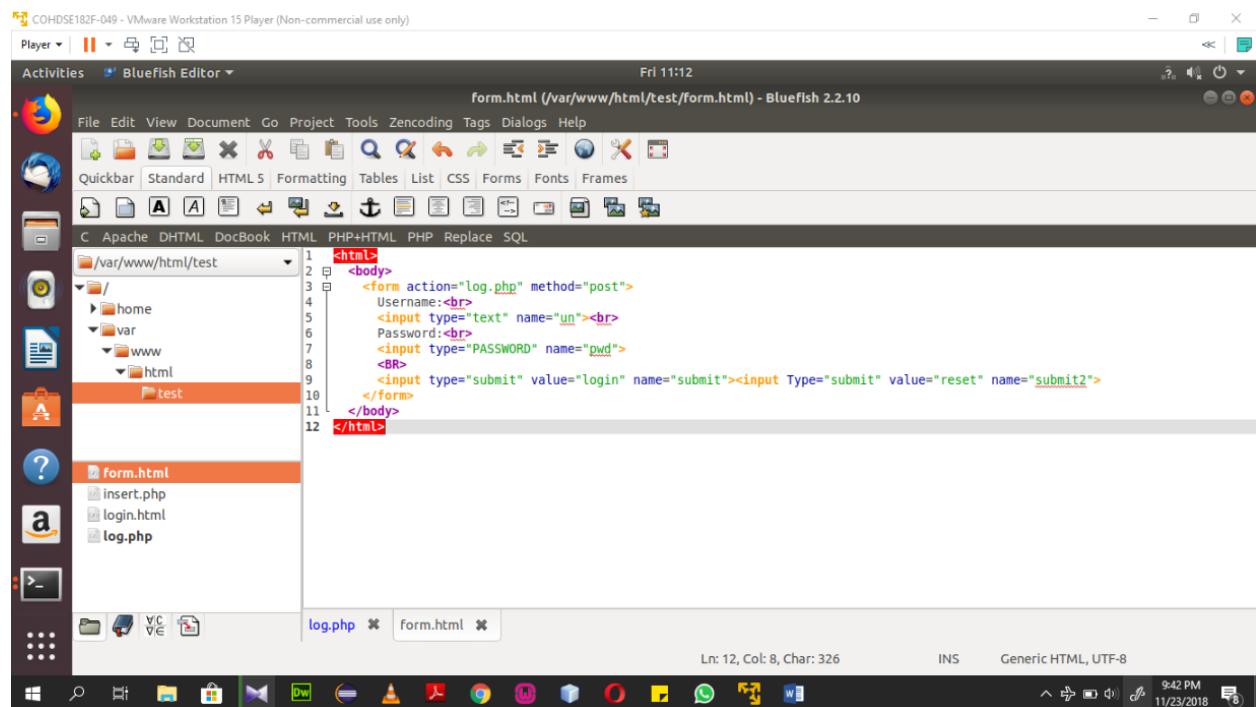
3)Form the Mysql database using following codes.

Show databases;

Create database users;

Create use users;

Create table login(username varchar(30),password varchar(30));



The screenshot shows the Bluefish Editor interface with the file 'form.html' open. The code in the editor is:

```
<html>
  <body>
    <form action="log.php" method="post">
      Username:<br>
      <input type="text" name="un"><br>
      Password:<br>
      <input type="PASSWORD" name="pwd">
      <br>
      <input type="submit" value="login" name="submit"><input Type="submit" value="reset" name="submit2">
    </form>
  </body>
</html>
```

The file tree on the left shows the directory structure: /var/www/html/test. The file 'form.html' is selected. The status bar at the bottom indicates L: 12, Col: 8, Char: 326, INS mode, and Generic HTML, UTF-8 encoding. The system tray shows the date and time as 11/23/2018 9:42 PM.

COHDE182F-049 - VMware Workstation 15 Player (Non-commercial use only)

Player | Activities Bluefish Editor

Fri 11:14 * log.php (/var/www/html/test/log.php) - Bluefish 2.2.10

File Edit View Document Go Project Tools Zencoding Tags Dialogs Help

Quickbar Standard HTML5 Formatting Tables List CSS Forms Fonts Frames

C. Apache DHTML DocBook HTML PHP+HTML PHP Replace SQL

/var/www/html/test

 └── /

 ├── home

 └── var

 └── www

 └── html

 └── test

 └── log.php

form.html insert.php login.html

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "users";
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn)
{
    die("Connection failed: " . mysqli_connect_error());
}
$un=$_POST['un'];
$pwd=$_POST['pwd'];
if($un!=""&&$pwd!="")
{
    $query="select * from users where un='".$un."' and pwd='".$pwd."'";
    $result=mysqli_query($conn,$query);
    if(!$result)
        die("Query Failed: " . mysqli_error($conn));
    else{
        if(mysqli_num_rows($result) > 0)

```

Ln: 16, Col: 69, Char: 380 INS PHP, UTF-8 Windows Ink Workspace

9:44 PM 11/23/2018

