

# Assignment 2

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## Linux Server/Network Setup

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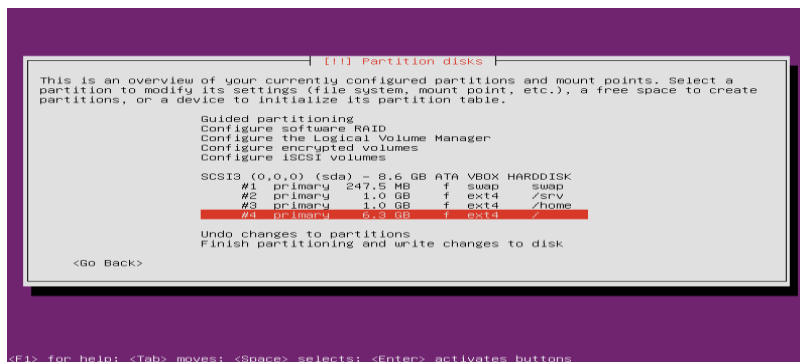
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## Part 1-Install New Server / Windows Client

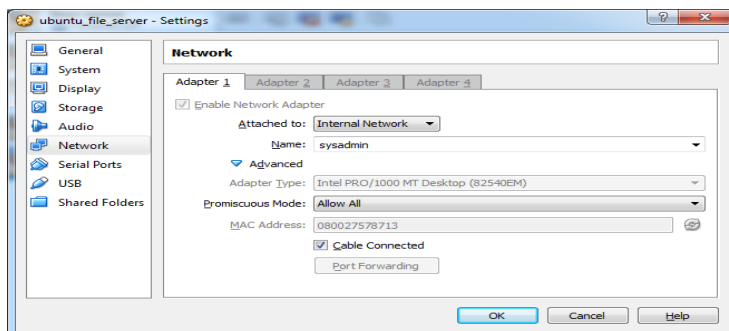
First we begin by creating the new VM Ubuntu\_file\_server

Use the default values until we get to partitioning.

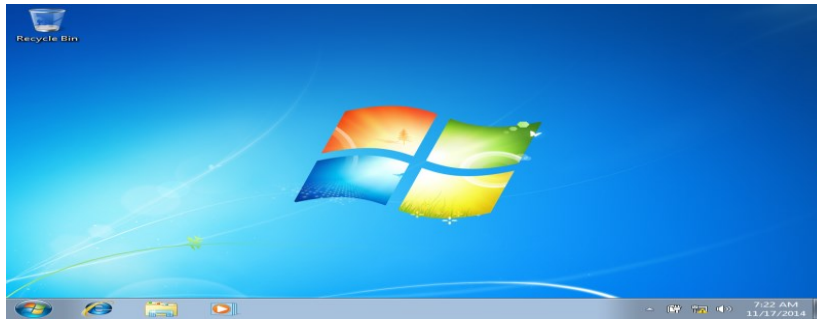


Set the partitions as wanted above

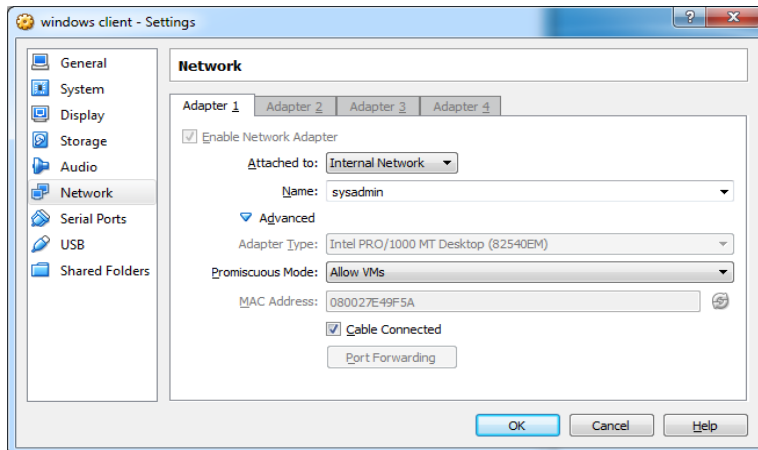
After manually setting the partitions I set the Ethernet adapter to internal network “sysadmin” as shown below.



Since you asked us to skip the windows install here's just a screen shot of the windows VM



After that I set it like the other server to internal network “sysadmin”



## Part 2: - Networking Configuration

First we back up both the linux ssh server and the ubuntu\_file\_server's interface files

Next is to save the original interface files.

Once the username and password is enter I used the following commands:

```
Cd ../../..
```

```
Cd etc/network
```

```
Sudo sp interfaces interface_assign2
```

Now that they are backed up we move on to configuring the servers interface files

```
Vi interfaces
```

Set them as so:

```

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
address 192.168.1.20
netmask 255.255.255.0
network 192.168.1.1
broadcast 192.168.1.255
gateway 192.168.1.1
dns-nameservers 192.168.1.1

```

```

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet static
address 192.168.1.10
netmask 255.255.255.0
network 192.168.1.1
broadcast 192.168.1.255
gateway 192.168.1.1
dns-nameservers 192.168.1.1

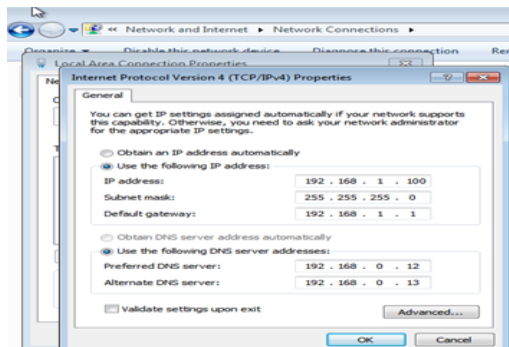
```

INSERT -- W10: Warning: Changing a readonly File 16,24 011

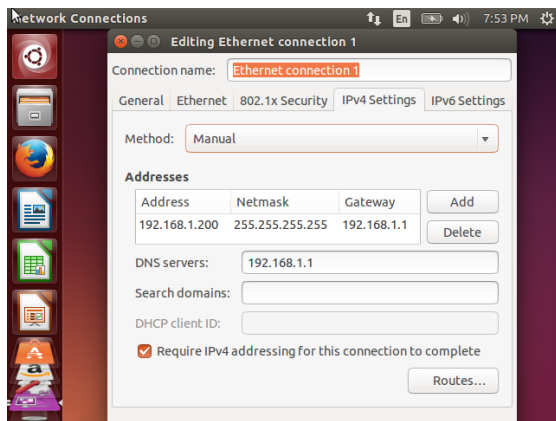
Since they were read only I had to override that to save the configuration

W !sudo tee %

Now that the servers are set statically it's now time for the windows client



Finally all that's left is the Linux desktop side



Now that all of the ips have been statically set time to ping the virtual router(192.168.1.1)

Windows client VM

```
C:\Windows\system32\cmd.exe
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Users\tnt>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Linux desktop

```
Terminal File Edit View Search Terminal Help
tnt@tnt-VirtualBox: ~
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=0.623 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=0.631 ms
64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=0.667 ms
64 bytes from 192.168.1.1: icmp_seq=6 ttl=64 time=0.817 ms
64 bytes from 192.168.1.1: icmp_seq=7 ttl=64 time=0.563 ms
64 bytes from 192.168.1.1: icmp_seq=8 ttl=64 time=0.602 ms
64 bytes from 192.168.1.1: icmp_seq=9 ttl=64 time=0.591 ms
64 bytes from 192.168.1.1: icmp_seq=10 ttl=64 time=1.17 ms
64 bytes from 192.168.1.1: icmp_seq=11 ttl=64 time=0.603 ms
64 bytes from 192.168.1.1: icmp_seq=12 ttl=64 time=0.715 ms
64 bytes from 192.168.1.1: icmp_seq=13 ttl=64 time=0.635 ms
64 bytes from 192.168.1.1: icmp_seq=14 ttl=64 time=0.842 ms
64 bytes from 192.168.1.1: icmp_seq=15 ttl=64 time=0.686 ms
64 bytes from 192.168.1.1: icmp_seq=16 ttl=64 time=0.824 ms
64 bytes from 192.168.1.1: icmp_seq=17 ttl=64 time=0.562 ms
64 bytes from 192.168.1.1: icmp_seq=18 ttl=64 time=0.671 ms
64 bytes from 192.168.1.1: icmp_seq=19 ttl=64 time=0.768 ms
64 bytes from 192.168.1.1: icmp_seq=20 ttl=64 time=0.660 ms
64 bytes from 192.168.1.1: icmp_seq=21 ttl=64 time=0.718 ms
64 bytes from 192.168.1.1: icmp_seq=22 ttl=64 time=0.679 ms
64 bytes from 192.168.1.1: icmp_seq=23 ttl=64 time=0.661 ms
64 bytes from 192.168.1.1: icmp_seq=24 ttl=64 time=1.04 ms
```

Ubuntu\_file\_server

```

64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=0.761 ms
64 bytes from 192.168.1.1: icmp_seq=6 ttl=64 time=0.566 ms
64 bytes from 192.168.1.1: icmp_seq=7 ttl=64 time=0.560 ms
64 bytes from 192.168.1.1: icmp_seq=8 ttl=64 time=0.659 ms
64 bytes from 192.168.1.1: icmp_seq=9 ttl=64 time=0.743 ms
64 bytes from 192.168.1.1: icmp_seq=10 ttl=64 time=0.536 ms
64 bytes from 192.168.1.1: icmp_seq=11 ttl=64 time=0.639 ms
64 bytes from 192.168.1.1: icmp_seq=12 ttl=64 time=0.666 ms
64 bytes from 192.168.1.1: icmp_seq=13 ttl=64 time=0.678 ms
^C64 bytes from 192.168.1.1: icmp_seq=14 ttl=64 time=0.523 ms
64 bytes from 192.168.1.1: icmp_seq=15 ttl=64 time=0.509 ms

64 bytes from 192.168.1.1: icmp_seq=16 ttl=64 time=0.605 ms
^C
64 bytes from 192.168.1.1: icmp_seq=17 ttl=64 time=0.688 ms
64 bytes from 192.168.1.1: icmp_seq=18 ttl=64 time=0.777 ms
64 bytes from 192.168.1.1: icmp_seq=19 ttl=64 time=0.747 ms
64 bytes from 192.168.1.1: icmp_seq=20 ttl=64 time=0.581 ms
64 bytes from 192.168.1.1: icmp_seq=21 ttl=64 time=0.675 ms
64 bytes from 192.168.1.1: icmp_seq=22 ttl=64 time=0.633 ms
64 bytes from 192.168.1.1: icmp_seq=23 ttl=64 time=0.524 ms
64 bytes from 192.168.1.1: icmp_seq=24 ttl=64 time=0.719 ms
64 bytes from 192.168.1.1: icmp_seq=25 ttl=64 time=1.01 ms
64 bytes from 192.168.1.1: icmp_seq=26 ttl=64 time=0.643 ms
64 bytes from 192.168.1.1: icmp_seq=27 ttl=64 time=0.685 ms
64 bytes from 192.168.1.1: icmp_seq=28 ttl=64 time=0.640 ms
64 bytes from 192.168.1.1: icmp_seq=29 ttl=64 time=0.729 ms
64 bytes from 192.168.1.1: icmp_seq=30 ttl=64 time=0.660 ms
64 bytes from 192.168.1.1: icmp_seq=31 ttl=64 time=0.631 ms

```

## Linux ssh server

```

tnt@herpderp:/etc/network$ ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data:
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=140 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=2.17 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=38.1 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=215 ms
64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=2.19 ms
64 bytes from 192.168.1.1: icmp_seq=6 ttl=64 time=2.17 ms
64 bytes from 192.168.1.1: icmp_seq=7 ttl=64 time=4.92 ms
64 bytes from 192.168.1.1: icmp_seq=8 ttl=64 time=3.02 ms
64 bytes from 192.168.1.1: icmp_seq=9 ttl=64 time=2.47 ms
64 bytes from 192.168.1.1: icmp_seq=10 ttl=64 time=4.08 ms
64 bytes from 192.168.1.1: icmp_seq=11 ttl=64 time=2.55 ms
64 bytes from 192.168.1.1: icmp_seq=12 ttl=64 time=4.52 ms
64 bytes from 192.168.1.1: icmp_seq=13 ttl=64 time=2.51 ms
64 bytes from 192.168.1.1: icmp_seq=14 ttl=64 time=2.21 ms
64 bytes from 192.168.1.1: icmp_seq=15 ttl=64 time=2.24 ms
64 bytes from 192.168.1.1: icmp_seq=16 ttl=64 time=4.31 ms
64 bytes from 192.168.1.1: icmp_seq=17 ttl=64 time=15.4 ms
64 bytes from 192.168.1.1: icmp_seq=18 ttl=64 time=2.27 ms
64 bytes from 192.168.1.1: icmp_seq=19 ttl=64 time=1.97 ms

```

All VM pinging 192.168.1.1 work!

## Part 3- Configure Networking Services (SSH Server, Samba)

Install SSH server and samba packages on ubuntu\_file\_server

Sudo apt-get install openssh-server openssh-client

Sudo apt-get install samba

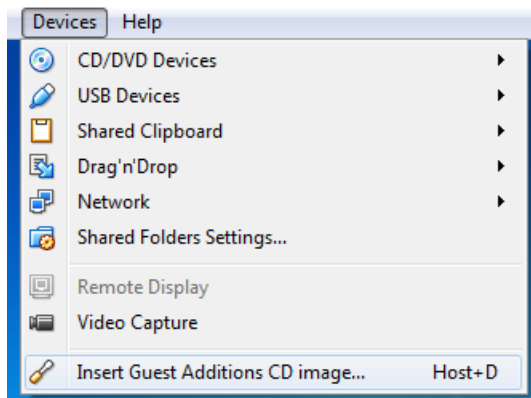
```
tnt@ubuntufilerserver:~$ sudo apt-get install openssh-server openssh-client
```

```
tnt@ubuntufilerserver:~$ sudo apt-get install samba
[sudo] password for tnt: _
```

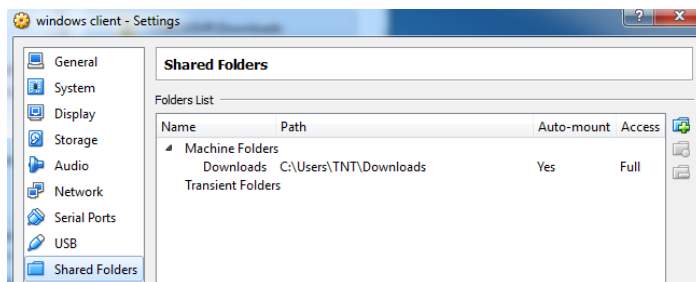
Next install putty into windows client

Well this was odd but I got it to work

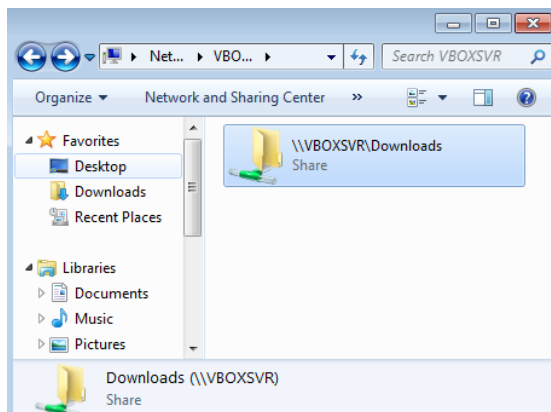
First I add the VM ware guest additions cd image and install it



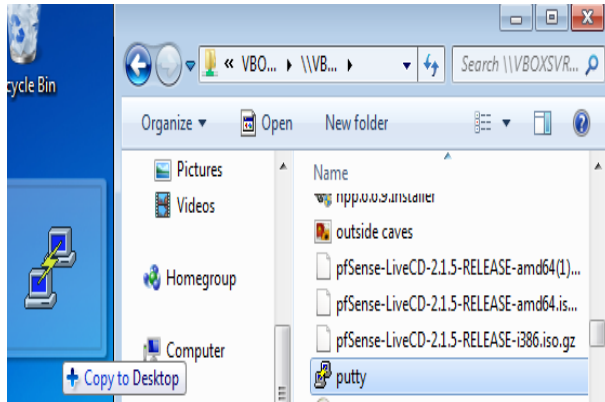
After I add my downloads folder to the VM so I can copy over my putty .exe



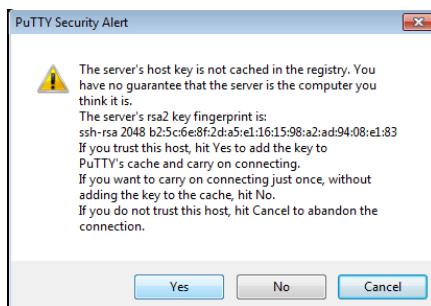
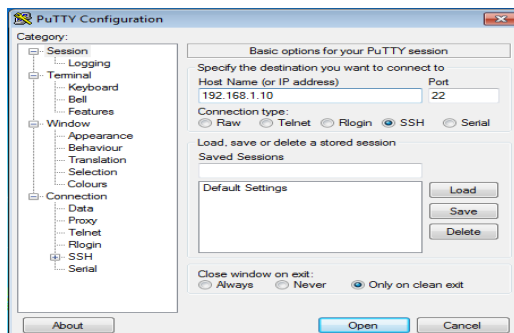
Now it shows up on the network share drives



Super Success!



Now we have putty time test ssh!



Yes please!

```
tnt@herpderp: ~
login as: tnt
tnt@192.168.1.10's password:
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-32-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

System information as of Wed Nov 19 09:37:11 EST 2014

System load:  0.0          Processes:      72
Usage of /:   15.9% of 6.99GB Users logged in:  1
Memory usage: 12%         IP address for eth0: 192.168.1.10
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

Last login: Wed Nov 19 09:37:11 2014 from localhost
tnt@herpderp:~$
```



I'm in!

Now time to configure samba files!

```
Cd ../../..
```

```
Cd etc/samba
```

```
Vi smb.conf
```

Add in the share definitions

```
##### Share Definitions #####
[backup]
path=/home/tnt/backup
[docs]
path=/home/tnt/docs
# Un-comment the following (and tweak the other settings below to suit)
# to enable the default home directory shares. This will share each
# user's home directory as \\server\username
[homes]
; comment = Home Directories
```

Because it's a read only file again

```
W !sudo tee %
```

Make sure the folders are available in home folder

```
Mkdir backup
```

```
Mkdir docs
```

And add permissions

```
Chmod 777 backup
```

```
Chmod 777 docs
```

Test to see if I can access the samba!

```
tnt@ubuntufileserv: ~/docs
login as: tnt
tnt@192.168.1.20's password:
Access denied
tnt@192.168.1.20's password:
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-32-generic)
 * Documentation:  https://help.ubuntu.com/

System information as of Wed Nov 19 08:47:53 EST 2014
System load:  0.04               Processes:
Usage of /home: 0.1% of 922MB    Users logged in:
Memory usage:  10%              IP address for eth0:
Swap usage:    0%

Graph this data and manage this system at:
https://landscape.canonical.com/

Last login: Wed Nov 19 08:47:53 2014 from localhost
tnt@ubuntufileserv:~$ cd docs
tnt@ubuntufileserv:~/docs$
```

Yes to windows

```
Last login: Wed Nov 19 10:06:01 2014 from 192.168.1.100
tnt@ubuntufileservr:~$ docs
No command 'docs' found, did you mean:
Command 'd2cs' from package 'pvpgn' (universe)
Command 'dcs' from package 'drbl' (universe)
Command 'dots' from package 'dots' (universe)
Command 'rocs' from package 'rocs' (universe)
Command 'dmcs' from package 'mono-mcs' (main)
Command 'ocs' from package 'cscope' (universe)
docs: command not found
tnt@ubuntufileservr:~$ cd docs
tnt@ubuntufileservr:~/docs$ mkdir linux
tnt@ubuntufileservr:~/docs$
```

And Linux

## Part 4: Configure Your srv1 to be a web server

Installing apache

```
Sudo apt-get install apache2
```

Setting up the webserver and enabling it (thanks to helpUbuntu.com on this one)

```
Sudo cp /etc/apache2/sites-available/000-default.conf /etc/apache2/sites-available/mynewsite.conf
```

```
Sudo a2ensite mynewsite
```

```
Sudo service apache2 restart
```

Now back up index.html

```
Cd var/www/html
```

```
Sudo cp index.html index_backup.html
```

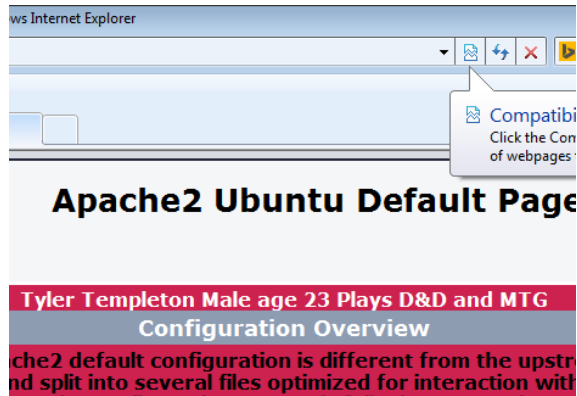
```
Nano index.html
```

And edit it with my info

```
machine view Devices Help
GNU nano 2.2.6
</html>
<head>
</head>
<body>
Tyler TEmpleton
age 23
male
magic the gathering player
</body>
<footer>
</footer>
</html>
```

(it broke before I could finish so I just re edited the index)

It worked!



## Part 5 user management

Downloaded the text list

```
Wget http://courses.sheridanc.on.ca/downloads/courses/syst28296/auth\_list\_wed.txt
```

Added the new users

New users

## Command dump

Ubuntu file server

```
Cd ../../..
```

```
Pwd
```

```
Cd ect/network
```

```
Cd etc
```

```
Cd network
```

```
Vi interfaces
```

```
Pwd
```

```
Ls
```

```
Sudo apt-get install apache2
```

```
Sudo cp /etc/apache2/sites-available/000-default.conf /etc/apache2/sites-available/mynewsite.conf
```

```
Sudo a2ensite mynewsite
```

```
Sudo service apache2 restart
Cd var/www/html
Sudo cp index.html index_backup.html
Sudo nano index.html
History -w ~/history.txt
```

```
Ubuntu_file_server
Cd
Cd ../../
Pwd
Cd etc/network
Cp interfaces interfaces_assign2
Sudo cp interfaces interfaces_assign2
Vi interfaces
Cd ../../..
Sudo apt-get samba
Sudo apt-get openssh-server openssh-client
Cd etc/samba
Vi smb.conf
W !sudo tee %
W !sudo tee %
Mkdir backup
Mkdir docs
Chmod 777 backup
Chmod 777 docs
History
```

Linux desktop

Ping 192.168.1.1

Ping 192.168.1.10

Ssh 192.168.10

Ssh 192.168.20