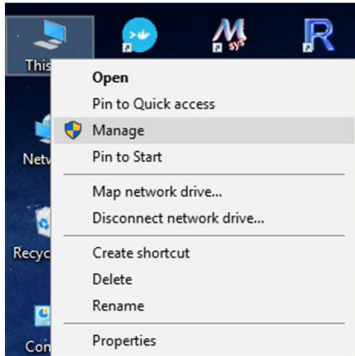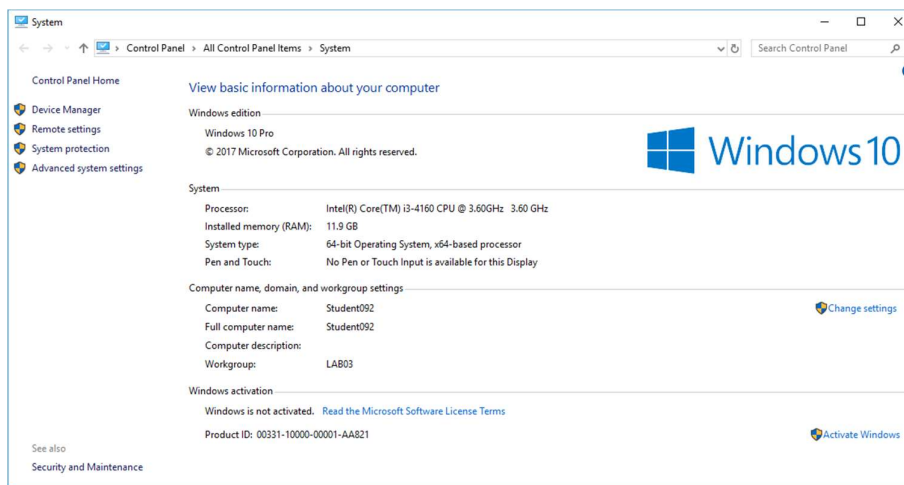# Practical 10

Setting up Samba
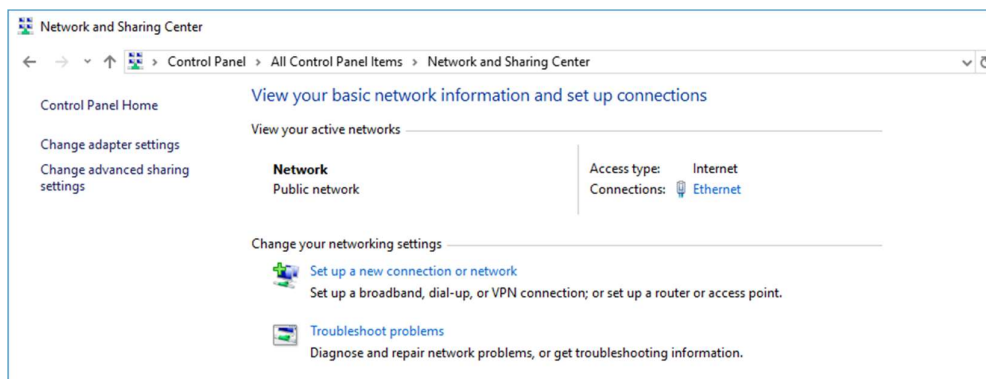
Settings to be done in Windows:

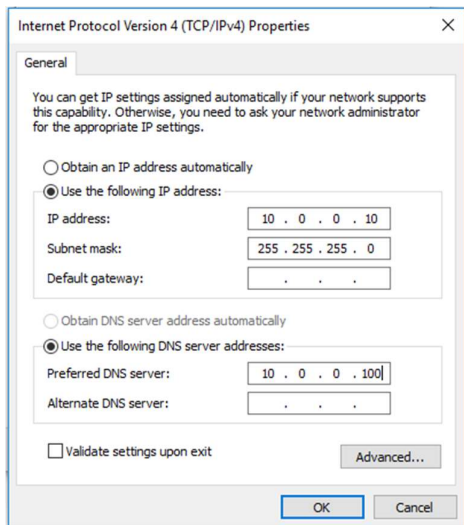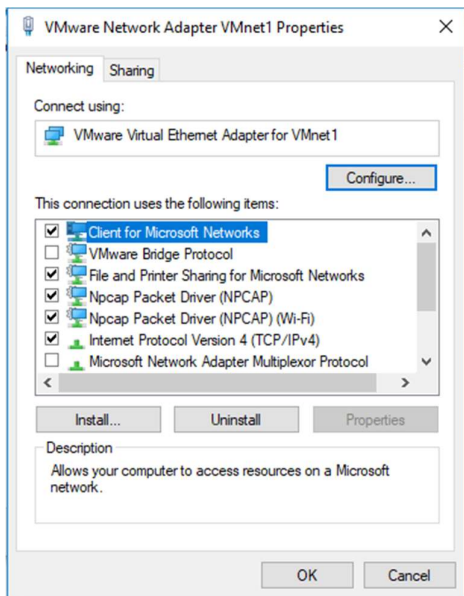1) Go to "This PC" click on "Properties". Check Workgroup of your windows machine.
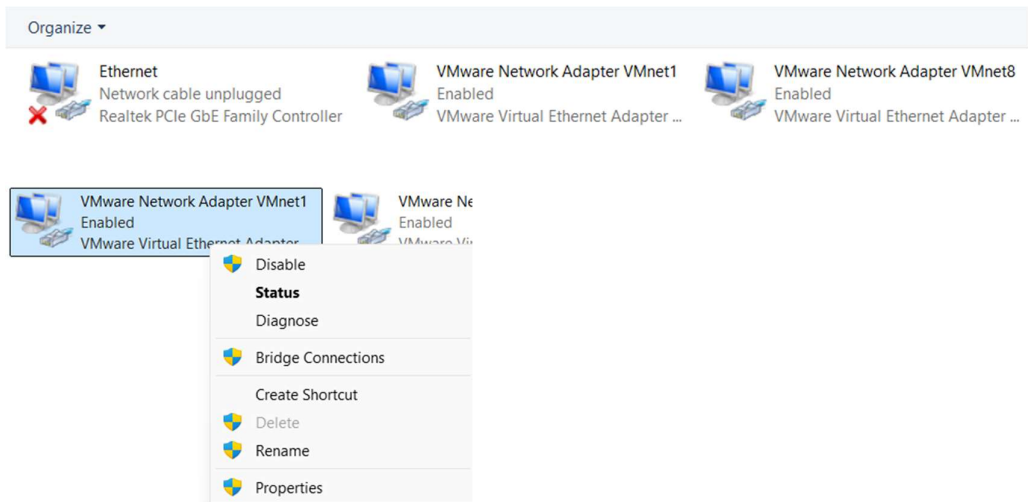

2) Go to "Network" and right click on "Properties" and also note down the Workgroup.


3) Go to the option "Change adapter settings". Right click on "VMware Network Adapter VMnet1". Click on "IPv4" then click on "Properties" button and Set IP Address as 10.0.0.10. Now Click "OK" and click "Close".

Organize ▾

🖥 **Ethernet**
Network cable unplugged
Realtek PCIe GbE Family Controller
❌

🖥 **VMware Network Adapter VMnet1**
Enabled
VMware Virtual Ethernet Adapter ...

🖥 **VMware Network Adapter VMnet8**
Enabled
VMware Virtual Ethernet Adapter ...

🖥 **VMware Network Adapter VMnet1**
Enabled
VMware Virtual Ethernet Adapter

🖥 **VMware Ne**
Enabled
VMware Vir

🛡 Disable
Status
Diagnose
🛡 Bridge Connections
Create Shortcut
🛡 Delete
🛡 Rename
🛡 Properties

VMware Network Adapter VMnet1 Properties   ✕

Networking Sharing

Connect using:

🖥 VMware Virtual Ethernet Adapter for VMnet1

Configure...

This connection uses the following items:

☑ 🖥 Client for Microsoft Networks
☐ 🖥 VMware Bridge Protocol
☑ 🖥 File and Printer Sharing for Microsoft Networks
☑ 🖥 Npcap Packet Driver (NPCAP)
☑ 🖥 Npcap Packet Driver (NPCAP) (Wi-Fi)
☑ 🖥 Internet Protocol Version 4 (TCP/IPv4)
☐ 🖥 Microsoft Network Adapter Multiplexor Protocol

Install...   Uninstall   Properties

Description
Allows your computer to access resources on a Microsoft network.

OK   Cancel

Internet Protocol Version 4 (TCP/IPv4) Properties   ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

◯ Obtain an IP address automatically
◉ Use the following IP address:

IP address: 10 . 0 . 0 . 10
Subnet mask: 255 . 255 . 255 . 0
Default gateway: .   .   .

◯ Obtain DNS server address automatically
◉ Use the following DNS server addresses:

Preferred DNS server: 10 . 0 . 0 . 100
Alternate DNS server: .   .   .

☐ Validate settings upon exit   Advanced...

OK   Cancel

4) Right click on "VMWare Network Adapter VMnet8". Click "IPv4", click on "Properties" button and set IP Address as 10.0.0.20. Now, click "OK" and click "CLOSE".
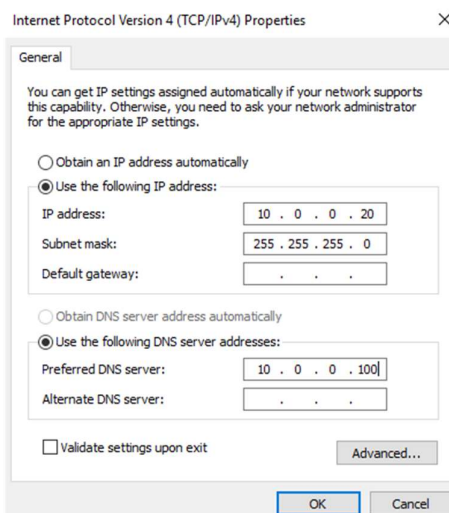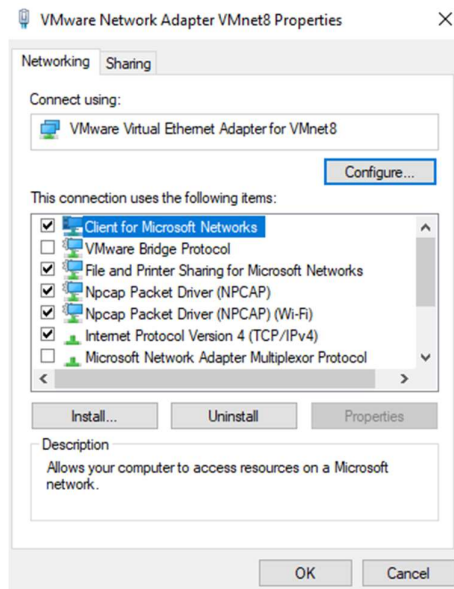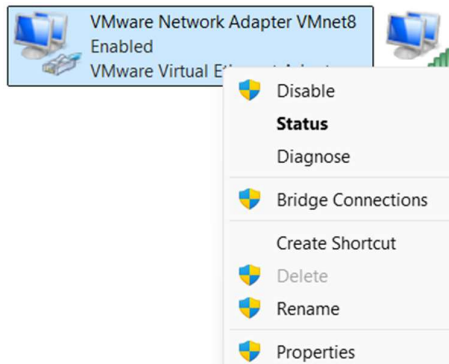
Samba server installation

1) Check IP Address of your server.

```
[root@localhost ~]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.0.100  netmask 255.0.0.0  broadcast 10.255.255.255
        inet6 fe80::20c:29ff:feaf:d3cb  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:af:d3:cb  txqueuelen 1000  (Ethernet)
        RX packets 1893  bytes 122180 (119.3 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 42  bytes 5326 (5.2 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

2) Check for service package of samba.

```
[root@localhost ~]# rpm -q samba
samba-4.6.2-8.el7.x86_64
[root@localhost ~]#
```

3) Go to /etc/samba directory and list down the contents of it. Make a copy of smb.conf file to smb.conf.sample and then open the configuration file of samba.

```
[root@localhost ~]# cd /etc/samba
[root@localhost samba]# ls
lmhosts  smb.conf  smb.conf.example
[root@localhost samba]#
[root@localhost samba]# mv smb.conf smb.conf.sample
[root@localhost samba]#
[root@localhost samba]# vi smb.conf
```

4) Write the following contents in the file and save it.

```
[global]
netbios name = localhost
workgroup = LAB03

[HR]
path = /dept/hr
Writable = yes
Valid users = tyit01, tyit02

[SALES]
path = /dept/sales
Writable = yes
Valid users = tyit01, tyit02

[ACCOUNTS]
path = /dept/accounts
Read Only = yes

~
~
```

Press **esc :wq** to save and exit from vi editor.

5) Create a directory, subdirectories and few files into it. You can also write contents in the file. This is a directory to be shared by samba.

```
[root@localhost samba]# mkdir /dept
[root@localhost samba]# mkdir /dept/hr
[root@localhost samba]# mkdir /dept/sales
[root@localhost samba]# mkdir /dept/accounts
[root@localhost samba]#
[root@localhost samba]# touch /dept/hr/1.txt
[root@localhost samba]# touch /dept/hr/2.txt
[root@localhost samba]#
[root@localhost samba]# touch /dept/sales/3.txt
[root@localhost samba]# touch /dept/sales/4.txt
[root@localhost samba]#
[root@localhost samba]#
[root@localhost samba]# touch /dept/accounts/5.txt
[root@localhost samba]# touch /dept/accounts/6.txt
[root@localhost samba]#
```

All shared directories are public. /dept/hr and /dept/sales are writable in whereas /dept/accounts is read only.

6) Now restart the service and check its status.

```
[root@localhost samba]# systemctl restart smb
[root@localhost samba]# systemctl status smb
● smb.service - Samba SMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled; vendor preset: disabled)
   Active: active (running) since Mon 2024-09-23 15:45:24 IST; 11s ago
 Main PID: 6943 (smbd)
   Status: "smbd: ready to serve connections..."
   CGroup: /system.slice/smb.service
           ├─6943 /usr/sbin/smbd
           ├─6944 /usr/sbin/smbd
           ├─6945 /usr/sbin/smbd
           └─6946 /usr/sbin/smbd

Sep 23 15:45:24 localhost.localdomain systemd[1]: Starting Samba SMB Daemon...
Sep 23 15:45:24 localhost.localdomain smbd[6943]: [2024/09/23 15:45:24.775124,  0] ../lib/util
Sep 23 15:45:24 localhost.localdomain systemd[1]: Started Samba SMB Daemon.
Sep 23 15:45:24 localhost.localdomain smbd[6943]:    STATUS=daemon 'smbd' finished starting up
[root@localhost samba]#
```

7) Execute the command testparm to test the parameters.

```
[root@localhost samba]# testparm
Load smb config files from /etc/samba/smb.conf
rlimit_max: increasing rlimit_max (1024) to minimum Windows limit (16384)
Processing section "[HR]"
Processing section "[SALES]"
Processing section "[ACCOUNTS]"
Loaded services file OK.
Server role: ROLE_STANDALONE

Press enter to see a dump of your service definitions

# Global parameters
[global]
        workgroup = LAB03
        idmap config * : backend = tdb


[HR]
        path = /dept/hr
        read only = No
        valid users = tyit01 tyit02


[SALES]
        path = /dept/sales
        read only = No
        valid users = tyit01 tyit02


[ACCOUNTS]
        path = /dept/accounts
[root@localhost samba]#
```

8) Stop Firewall and disable SELinux.

```
[root@localhost samba]# systemctl stop firewalld
[root@localhost samba]# setenforce 0
```

9) Give full permission to directory and list the contents of the directory.

```
[root@localhost samba]# chmod -R 777 /dept
[root@localhost samba]# ls -l /dept
total 0
drwxrwxrwx. 2 root root 32 Sep 23 15:43 accounts
drwxrwxrwx. 2 root root 32 Sep 23 15:43 hr
drwxrwxrwx. 2 root root 32 Sep 23 15:43 sales
[root@localhost samba]#
```

10) Create a user and give samba password to it. This user will be samba user.

```
[root@localhost samba]# useradd tyit01
[root@localhost samba]# smbpasswd -a tyit01
New SMB password:
Retype new SMB password:
Added user tyit01.
[root@localhost samba]#
[root@localhost samba]# useradd tyit02
[root@localhost samba]# smbpasswd -a tyit02
New SMB password:
Retype new SMB password:
Added user tyit02.
[root@localhost samba]#
```
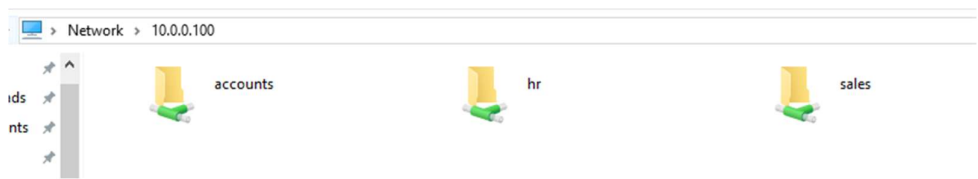
11) Now access this linux server from windows client. Go to run terminal and type IP address of server as \\10.0.0.100
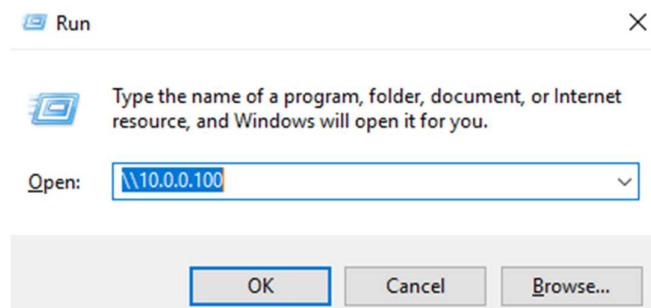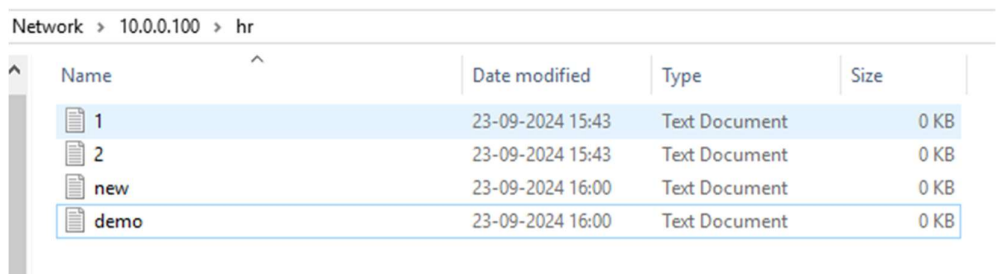

12) Login window will appear. Enter your username and password.
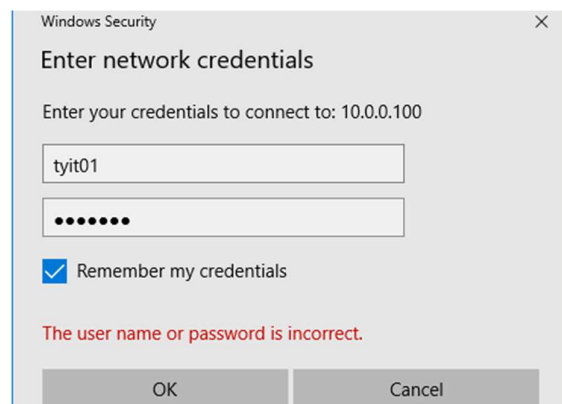
13) After successful login you will get to see shared directories.

Since, hr and sales are writable directories user can create files into it from windows end.

14) Accounts is read only directory. User can't create files into it from windows end.