

Experiment 2.2

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Subject Name: CC & DS lab

Subject Code: 21CSP-378

1. Aim: To find a procedure to transfer the files from one virtual machine to another virtual machine.

2. Objectives: To transfer files between two virtual machines.

3. Software Requirements:

- **Virtual Box.**

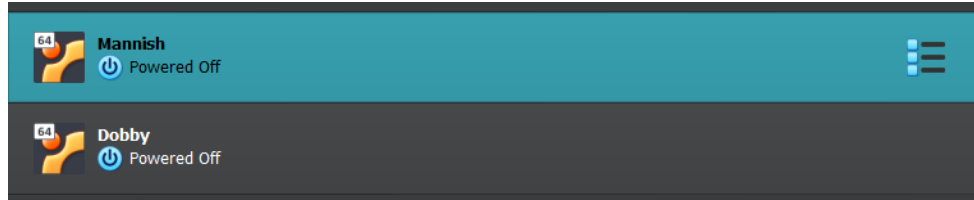
4. Description:

Transferring files between virtual machines (VMs) typically involves utilizing shared folders, network transfers, virtual machine management software, cloud storage, virtual machine snapshots, or external storage devices. Shared folders enable designated folders on the host machine to be accessible to both VMs for easy file exchange. Network transfers leverage protocols like FTP to move files over the network between VMs with configured network connectivity. Virtual machine management software like VMware Tools facilitates drag-and-drop file transfers between VMs. Cloud storage services such as Dropbox or Google Drive can be used if both VMs have internet access.

5. Procedure:

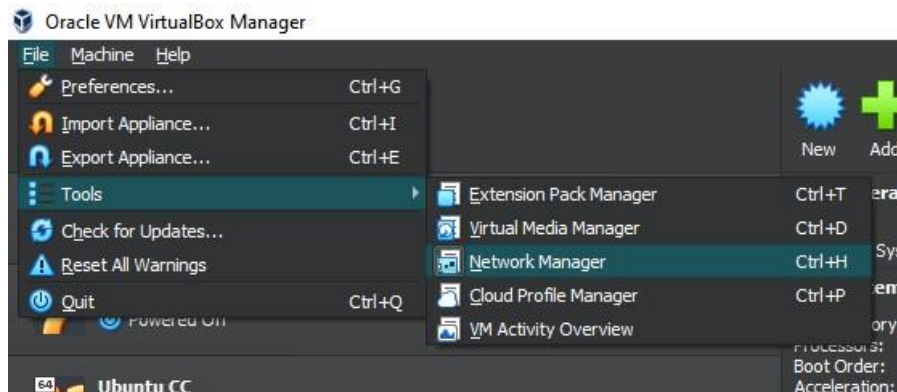
File sharing through terminal:

- a) Create another virtual machine

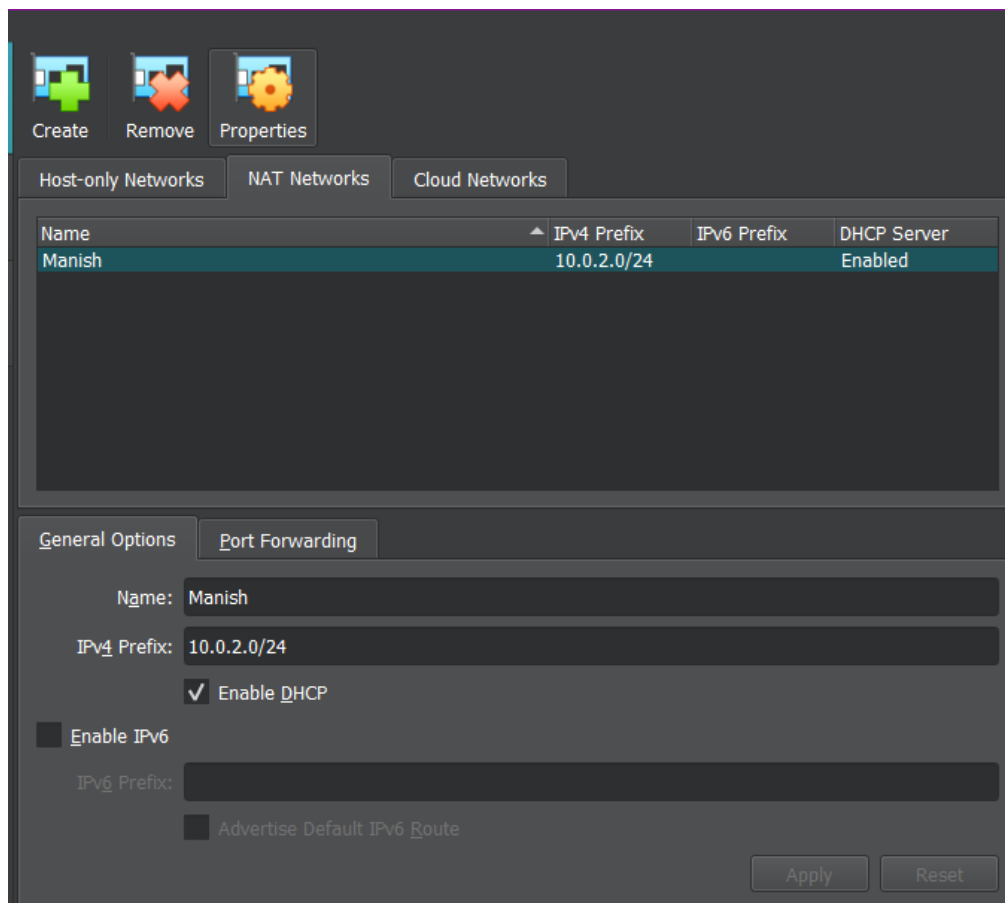


- b) Change network settings for virtual machines as by default all virtual machines will have the same IP address.

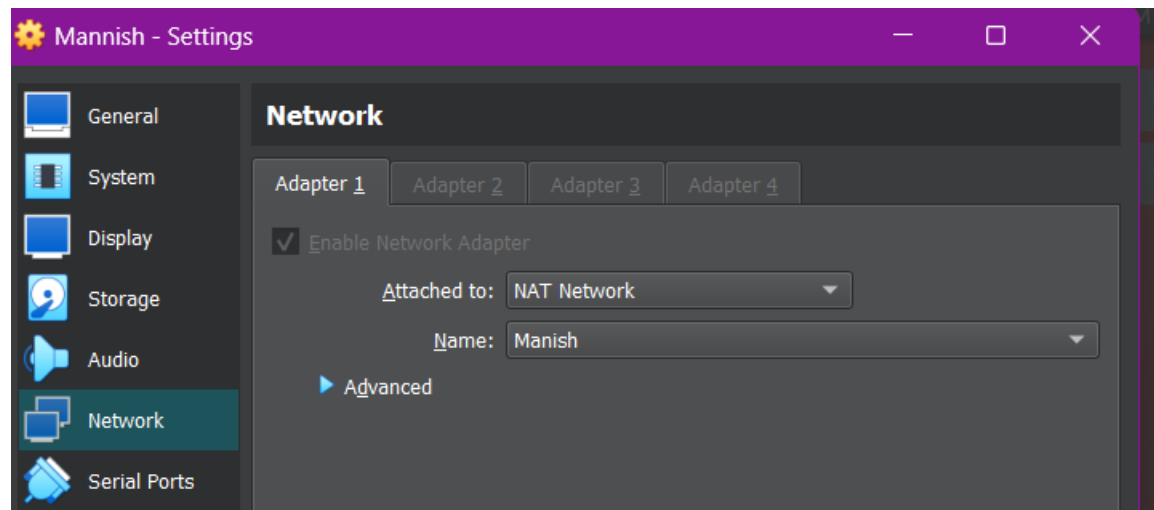
Go to file > Tools > Network Manager



Go to NAT Networks tab and provide name and ip address.



Go to settings of both virtual machines and select the network that has been created



- c) Open the virtual machine and check the IP address for both virtual machines Virtual machine 1

```
ntpp@ntpp-VirtualBox: ~
ntpp@ntpp-VirtualBox:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.100.4 netmask 255.255.255.0 broadcast 192.168.100.255
    inet6 fe80::29e1:c6ef:b74c:6adf prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:41:25:0e txqueuelen 1000 (Ethernet)
    RX packets 1351 bytes 1658110 (1.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 701 bytes 75009 (75.0 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Virtual machine 2

```
ubuntu@ubuntu-VirtualBox: ~
ubuntu@ubuntu-VirtualBox:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.100.5 netmask 255.255.255.0 broadcast 192.168.100.255
    inet6 fe80::6809:4678:41e6:9517 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:3c:56:46 txqueuelen 1000 (Ethernet)
    RX packets 544 bytes 443547 (443.5 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 755 bytes 574949 (574.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

d) Show the file from source virtual machine

```
ubuntu@ubuntu-VirtualBox: ~/Documents
ubuntu@ubuntu-VirtualBox:~$ cd Documents
ubuntu@ubuntu-VirtualBox:~/Documents$ ls
asd  CC_EXP1.pdf
ubuntu@ubuntu-VirtualBox:~/Documents$
```

e) Copy the file from one virtual machine to another using the following command:

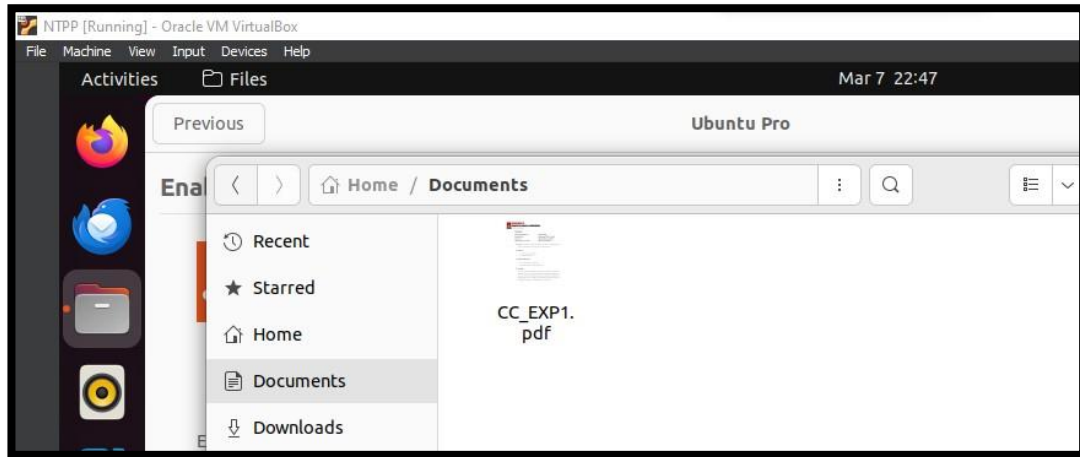
Scp filename username@_ip_address:/path/to/destination

```
ubuntu@ubuntu-VirtualBox:~/Documents$ scp CC_EXP1.pdf ntp@192.168.100.4:/home/ntp/
ntp/Documents/
The authenticity of host '192.168.100.4 (192.168.100.4)' can't be established.
ED25519 key fingerprint is SHA256:GrIl3yeVi//3eV6XsAgmbj6KDKto0VuOdXscOnTRM1o.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '192.168.100.4' (ED25519) to the list of known hosts.
ntp@192.168.100.4's password:
CC_EXP1.pdf                                100% 479KB 48.9MB/s 00:00
ubuntu@ubuntu-VirtualBox:~/Documents$
```

f) Check on the destination virtual machine

```
ntp@ntp-VirtualBox: ~/Documents
ntp@ntp-VirtualBox:~$ cd Documents
ntp@ntp-VirtualBox:~/Documents$ ls
CC_EXP1.pdf
ntp@ntp-VirtualBox:~/Documents$
```

6. Output:



7. Learning Outcomes:

- Learnt to transfer files between two virtual machines.