

LINUX NETWORKING MODULE 1 AND 2 ASSESSMENT SOLUTIONS

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1. Consider a case, a folder has multiple files and how would copy it to destination machine path (Try using SCP, cp options in Linux)

Local Copy with cp

```
sakthi-kumar-s@sakthi-kumar-s-... x sakthi-kumar-s@sakthi-kumar-s-... x sakthi-kumar-s@sakthi-kumar-s-V... x sakthi-kumar-s@sakthi-kumar-s-V... x v
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ mkdir -p ~/test_folder
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ echo "This is file1 for testing" > ~/test_folder/file1.txt
echo "This is file2 for testing" > ~/test_folder/file2.txt
```

Command:

```
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ cp -r "/home/sakthi-kumar-s/test_folder/" "/home/sakthi-kumar-s/Networking Assesments/Module1,2/"
```

```
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ ls -l "/home/sakthi-kumar-s/Networking Assesments/Module1,2/"
total 4
drwxr-xr-x 2 sakthi-kumar-s sakthi-kumar-s 4096 Feb 25 17:17 test_folder
```

Remote Copy with scp:

- Source Folder: /home/sakthi-kumar-s/test_folder
- Destination Path on EC2: /home/ubuntu
- EC2 Public IP: 54.172.71.17
- PEM File: /home/sakthi-kumar-s/Downloads/aws-key.pem
- Username on EC2: ubuntu

A remote cloud VM instance is taken to perform SCP

1) sending to cloud VM from VBox:

```
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ chmod 400 "/home/sakthi-kumar-s/Downloads/aws-key.pem"
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ scp -i "/home/sakthi-kumar-s/Downloads/aws-key.pem" -r "/home/sakthi-kumar-s/test_folder" ubuntu@54.172.71.17:/home/ubuntu/
file1.txt      100%  0    0.0KB/s   00:00
file2.txt      100% 26    0.0KB/s   00:00
```

Output of SCP on Ubuntu EC2 Instance:

```
ubuntu@ip-172-31-80-49:~$ ls
test_folder
ubuntu@ip-172-31-80-49:~$ cd test_folder
ubuntu@ip-172-31-80-49:~/test_folder$ ls
file1.txt file2.txt
```

2) Receiving from cloud VM to VBox:

```
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ scp -i "/home/sakthi-kumar-s/Downloads/aws-key.pem" ubuntu@54.172.71.17:/home/ubuntu/test_folder/file1.txt "/home/sakthi-kumar-s/"
(base) sakthi-kumar-s@sakthi-kumar-s-VirtualBox:~$ ls -l /home/sakthi-kumar-s/
total 64
drwxr-xr-x  2 sakthi-kumar-s sakthi-kumar-s 4096 Jan 20 15:25 Desktop
drwxr-xr-x  2 sakthi-kumar-s sakthi-kumar-s 4096 Jan 20 15:25 Documents
drwxr-xr-x  4 sakthi-kumar-s sakthi-kumar-s 4096 Feb 25 16:53 Downloads
-rwxr-xr-x  1 sakthi-kumar-s sakthi-kumar-s   0 Feb 25 17:15 file1.txt
```