**Qatar University**

**College of Engineering**

**CMPS 405: Operating Systems**

**Fall 2024**

**(Section B04)**

**Project Phase-1**

***Submitted to:***

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**Server-Side Tasks (VM1)**

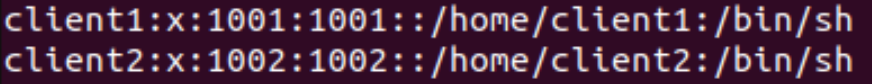
Task-1:

- Create local user accounts for each client on the server.

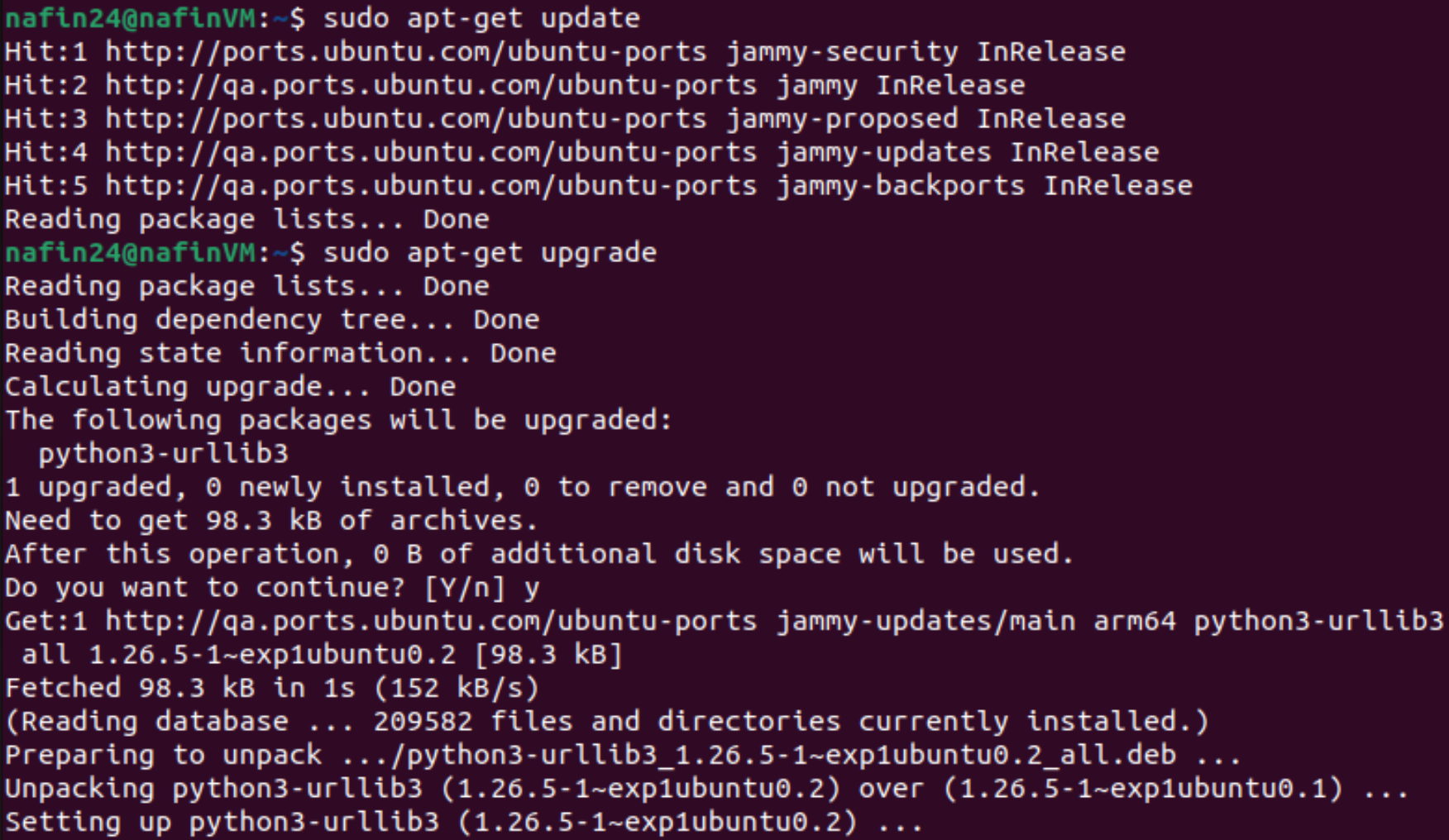


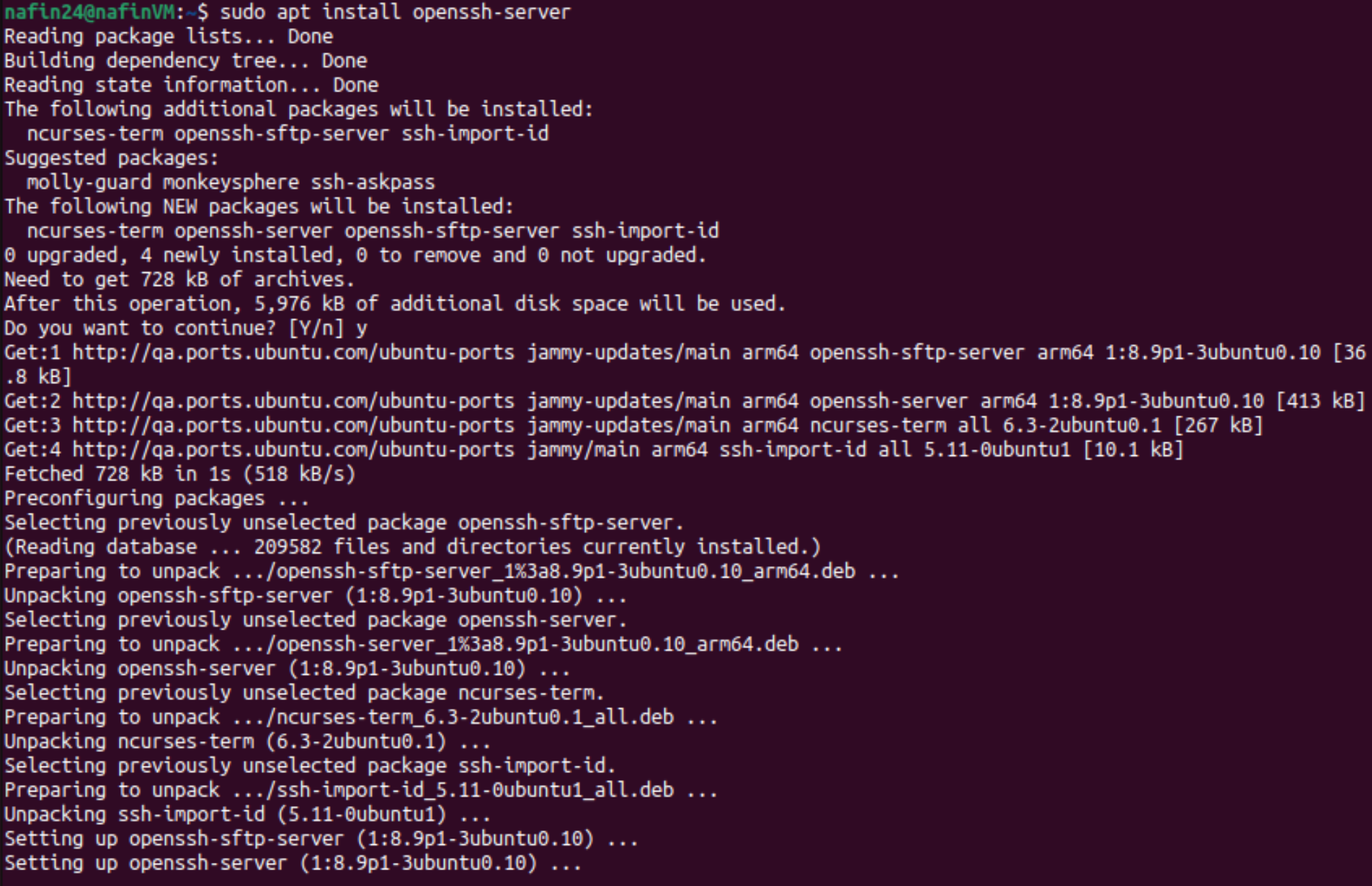


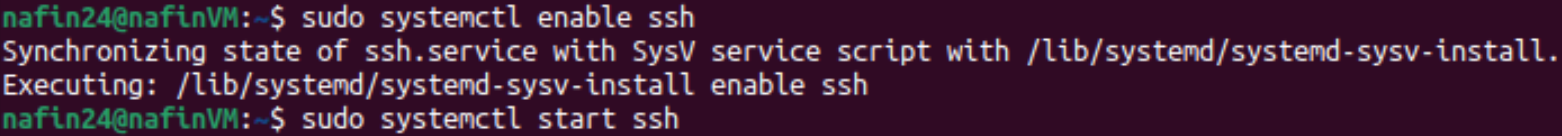


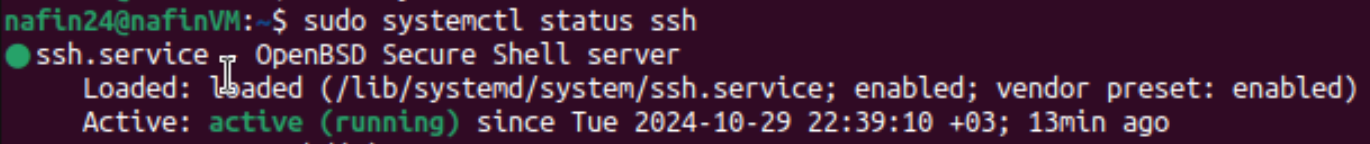


- Install and enable SSHD







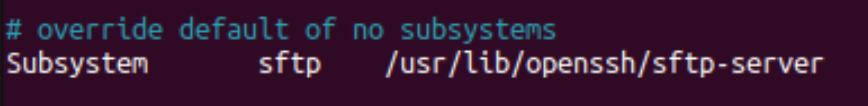


A screenshot of a computer program

Description automatically generated

- Configure SFTP for file transfer operations.

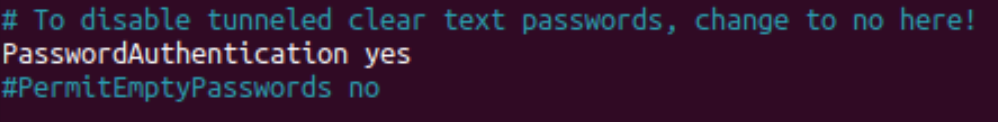


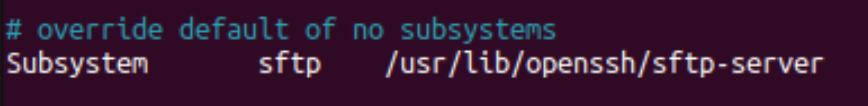


Task-2:

* Enable SSH access for clients using local account credentials, that is, configure SSHD server such that clients can access any file via their local accounts, using username and password.
* Set up SFTP for file uploads/downloads.
* Secure copy will be used to transfer files to and from server.







Task-3:

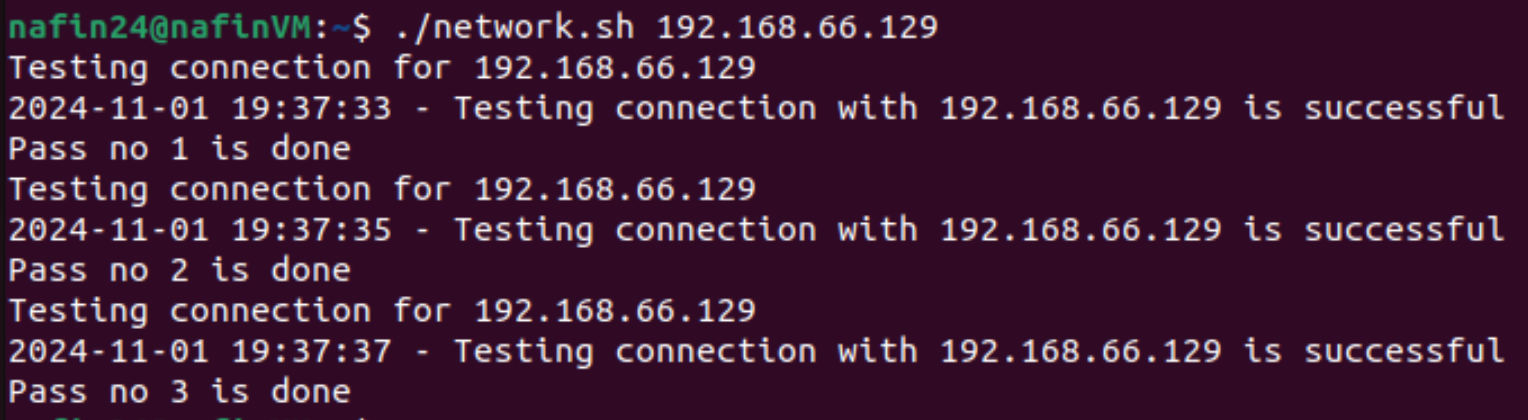
* ***Output samples of network.sh and traceroute.sh :***

Testing without providing ip:

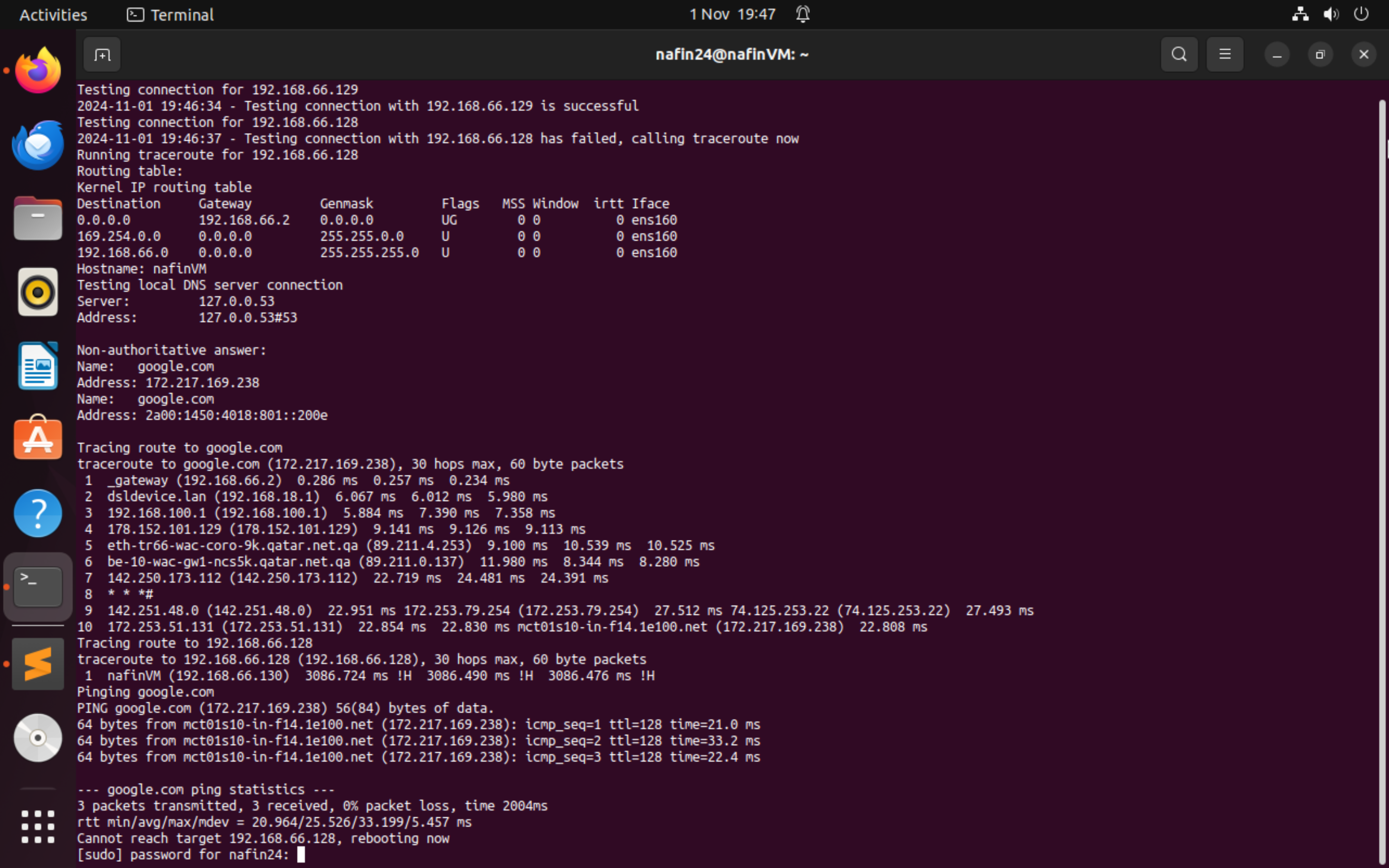
A close up of a sign

Description automatically generated

Testing client1 VM2 (192.168.66.129):



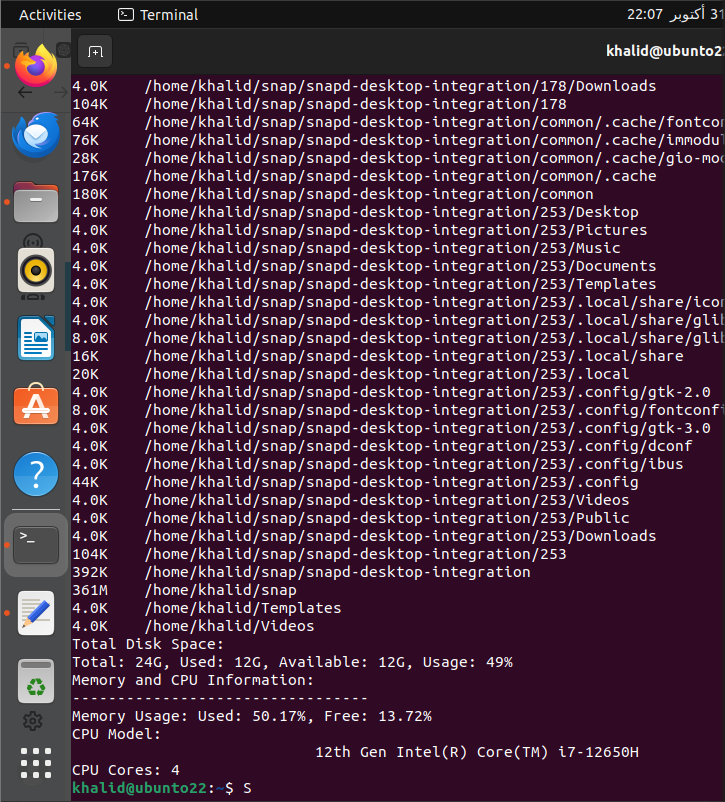
Testing client1 VM2 (192.168.66.129) and client2 VM3 with wrong ip to enforce traceroute:



Log file is created for both scripts



* ***Output sample of System.sh :***



**Client-Side Tasks (VM2 and VM3)**

Task-1:

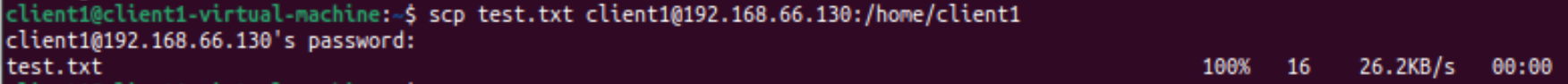
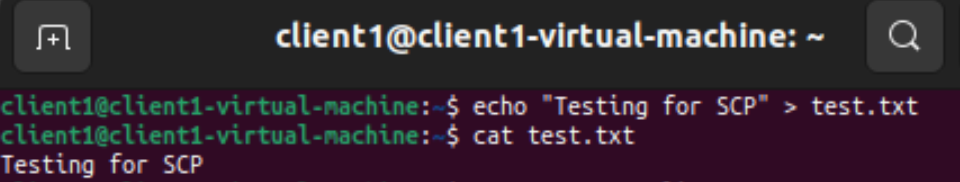
* Validate that SSH is installed and enabled (SSH is installed by default on most systems).
* Install an SFTP client.

A computer screen shot of a program

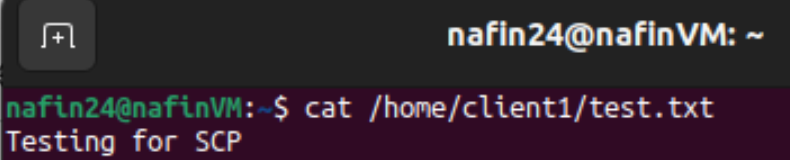
Description automatically generated

* Ensure SCP (Secure Copy) is available for file transfers.

In client1 VM2:



In client1’s directory from server VM1 :

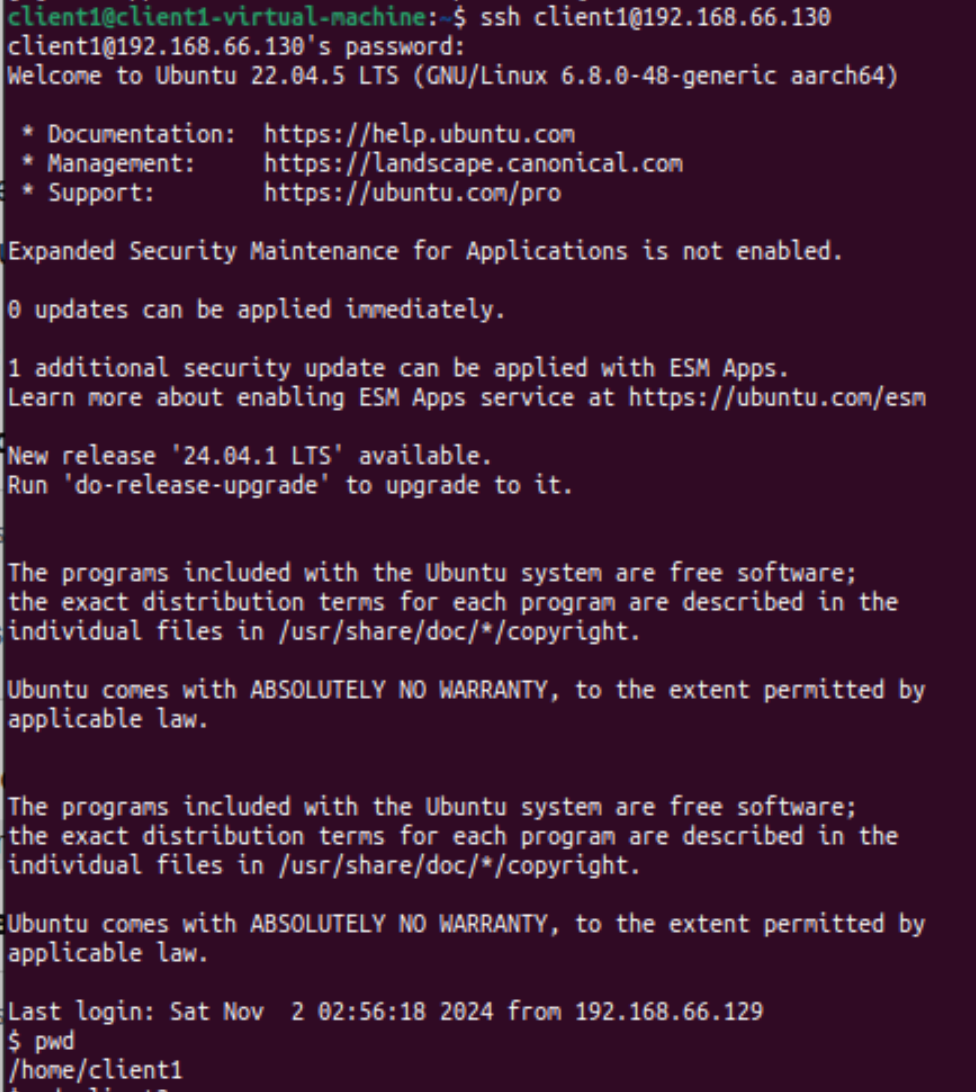


Task-2:

* SSH and SFTP Configuration:

A screen shot of a computer

Description automatically generated



A computer screen shot of a computer code

Description automatically generated

