**OS-Project Phase 1**

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| --- | --- | --- |
| Name | Tasks | Percentage |
| Anas Madkoor | Server-Side Tasks (VM1): Task 1, Task 2, Task 3 | 33.3% |
| Faisal Elbadri | Client-side Tasks (VM2) and (VM3): Task 1 and task 2 | 33.3% |
| Rashid Nafwa | Client-side Tasks (VM2) and (VM3): Task 2 and task 3 | 33.3% |

GitHub repository: <https://github.com/C974/Operating-System-Project>

Task 1:

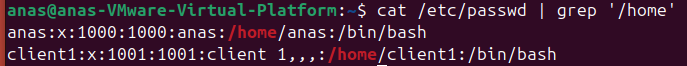
1.1: Create User (Client 1) = server

A screenshot of a computer

Description automatically generated

Password of client 1 (SFTP): **Os-project!12345**

Verify the creation of client 1



1.2: Install and Enable SSHD

A screenshot of a computer program

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A screenshot of a computer program

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A computer screen shot of a program

Description automatically generated

Inside the server we created client 2 client 3 with **Os-project!12345, password**

A screenshot of a computer screen

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Configured static ip address for client 2 and client 3,

┌──(client1㉿kali)-[~]

└─$ sudo nano /etc/network/interfaces

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Verifying the ip addresses using ip a command on the server which we’ll need in task 3

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**Modify SSH Configuration for SFTP Access**

A screen shot of a computer program

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Task 2:

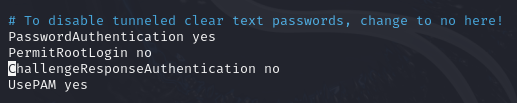
2.1 SSH and SFTP Configuration:

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sudo nano /etc/ssh/sshd\_config





A computer screen shot of a computer program

Description automatically generated

Created file with “touch test.txt” on my Desktop then we sftped to the server and uploaded the file, we used ls command on the server to verify that the file was uploaded successfully.

A screenshot of a computer

Description automatically generated

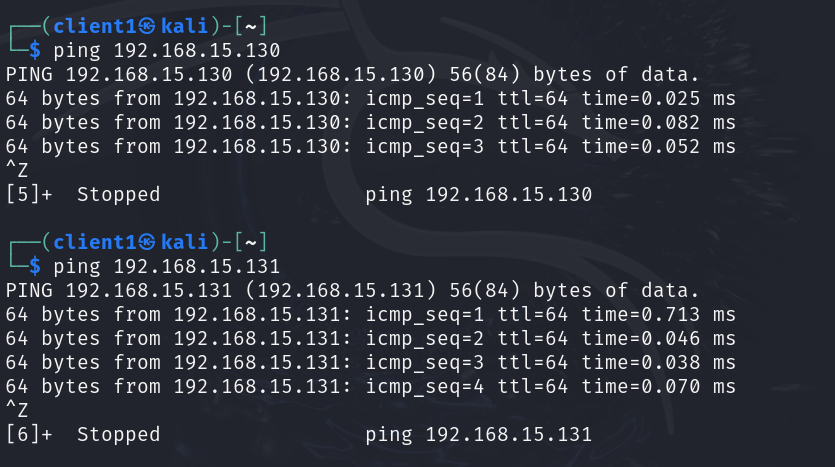
Now after we have the file uploaded, we downloaded it from the server to desktop while renaming it to test2.txt

A screenshot of a computer screen

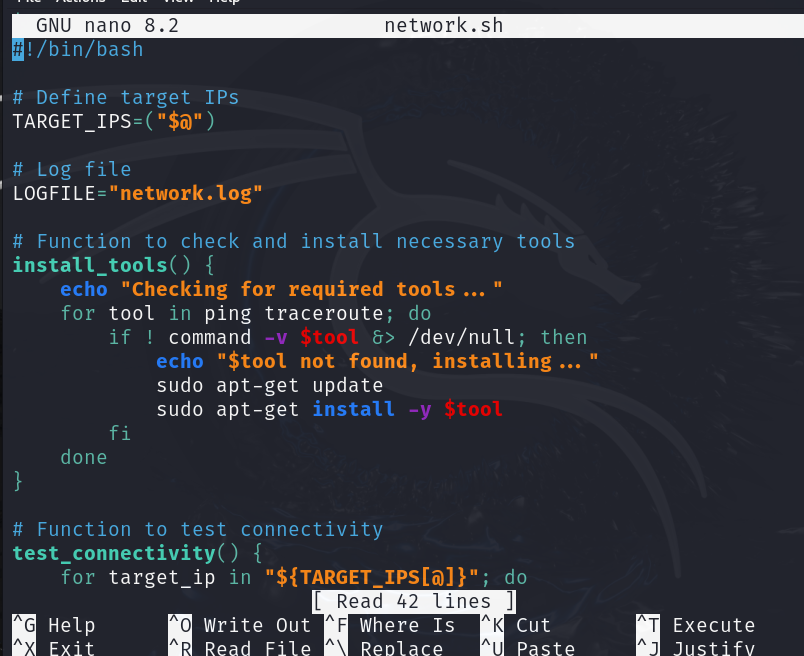
Description automatically generated

**Task3:**

Pinging client 2 192.168.15.130 and client 3 192.168.131 that we configured the static ips in task 1



Created network.sh



Created tracroute.sh

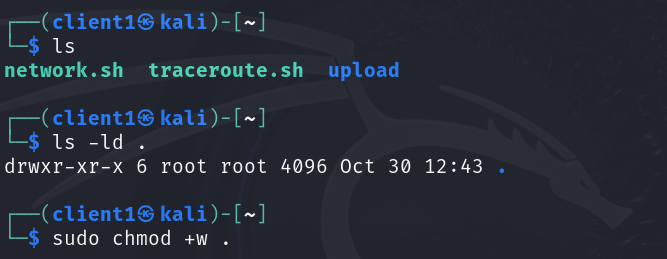
A computer screen shot of a computer code

Description automatically generated

Changed the privileges of the files to make the executable A close up of a computer screen

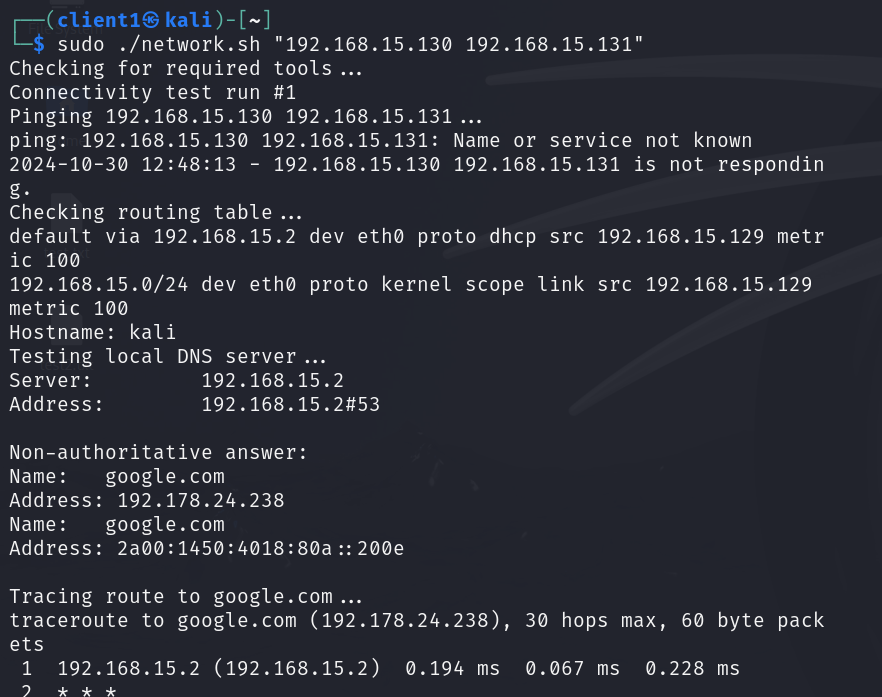
Description automatically generated

Changed privileges to be able to write the network.log file



Ran the network.sh file using this command sudo ./network.sh "192.168.15.130 192.168.15.131"

**Test run 1**



Test run 2

A computer screen with white text

Description automatically generated

Test run 3

A computer screen with white text

Description automatically generated

Now we have network.log file which stores the output in the log file

A computer screen shot of a computer code

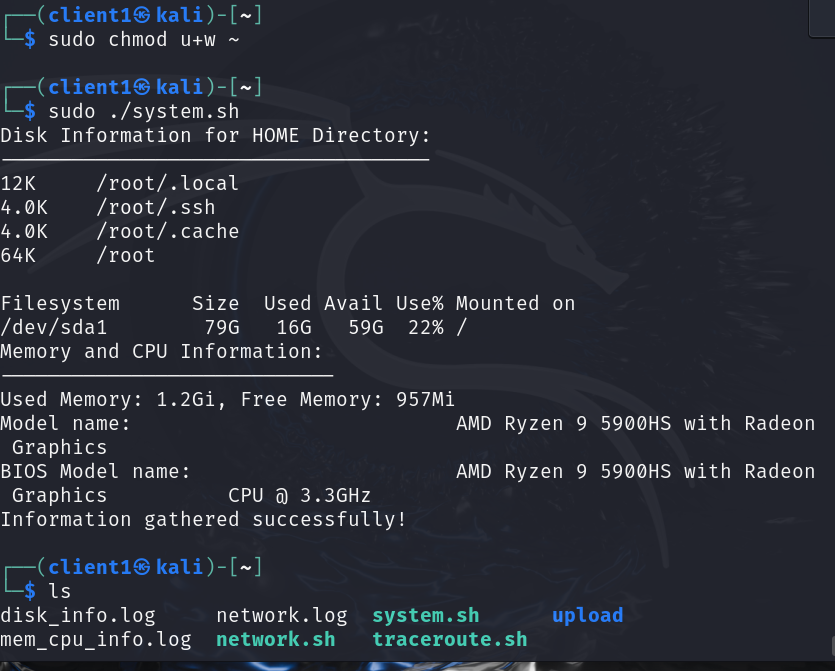
Description automatically generated

**System.sh:**

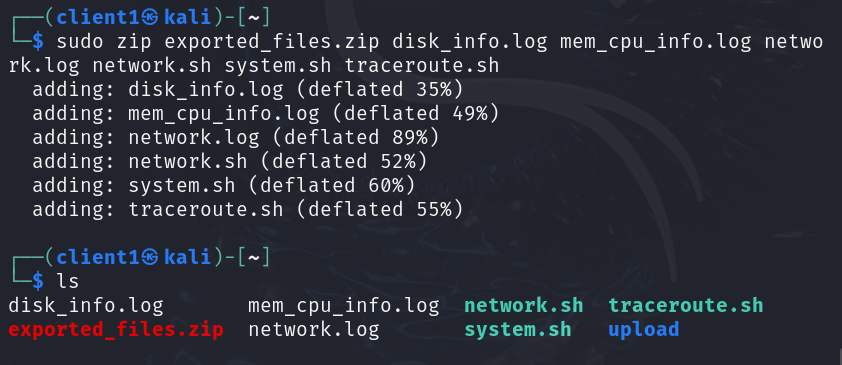
**A computer screen shot of text

Description automatically generated**

System.sh, disk\_info.log and mem\_cpu\_info.log files



Zipped the files



Downloaded them in our host machine (kali) in the download folder

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**Client Machine Setup (VM2 and VM3):**

**Task 1:**

**A close up of a computer screen

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**A computer screen shot of a program

Description automatically generated**

Install sftp client

A screenshot of a computer program

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Checking if scp is installed

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Task 2 configuration:

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Shh to client 2

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Shh from client 2 to client 3

A screenshot of a computer program

Description automatically generated

Sftp to client 2

A computer screen with white text

Description automatically generated

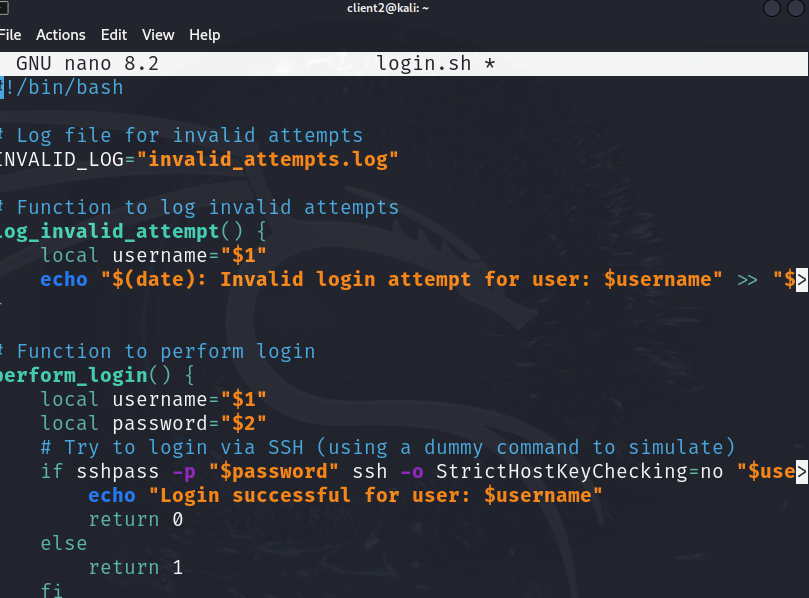
Sftp to client 3

A computer screen with white text

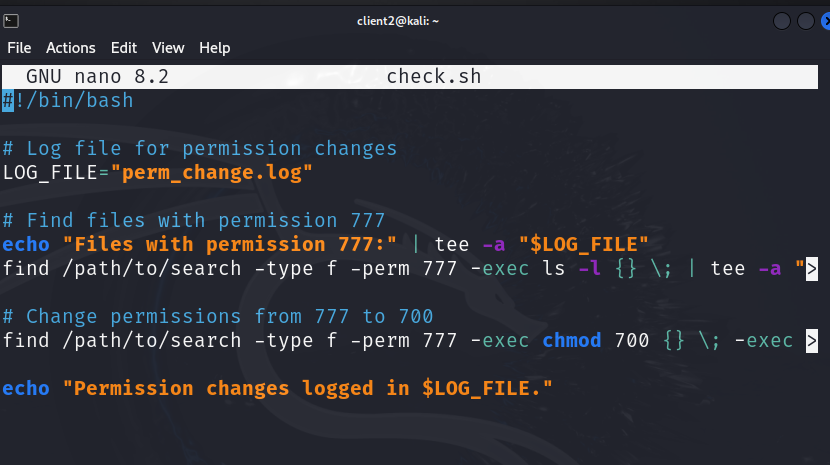
Description automatically generated

**Task 3 Shell Scripting:**

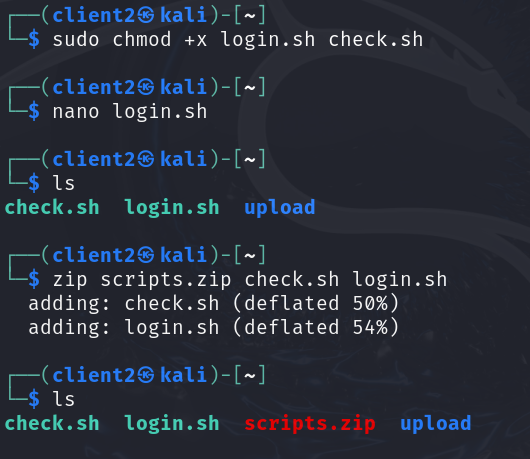
Login.sh in client 2



Check.sh



Then we zipped both login.sh and check.sh

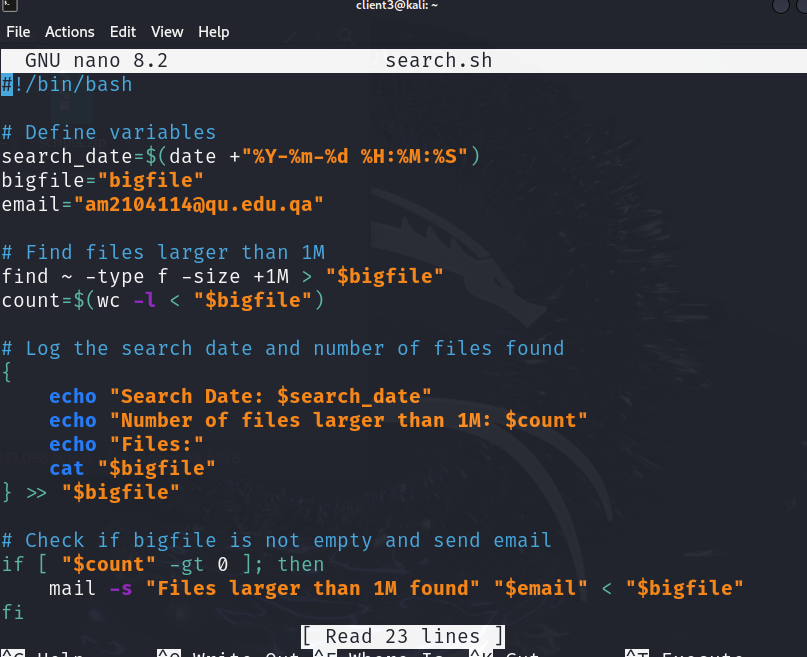


Downloaded the zip file we just created on our host machine (kali)

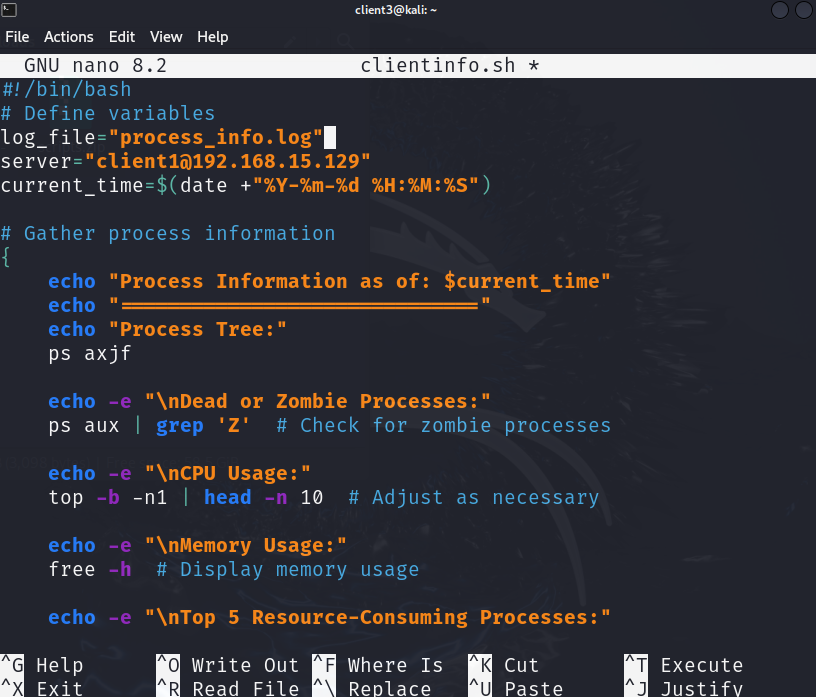
A computer screen with white text

Description automatically generated

**Client 3 Side Shell script 1: (Search.sh):**



Clientinfo.sh

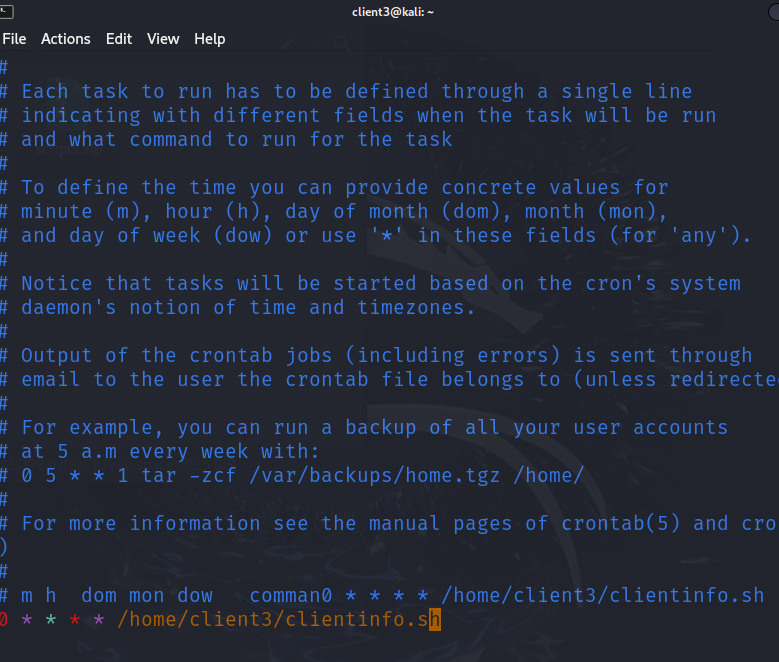


To run the script every hour

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0 \* \* \* \* /home/client3/clientinfo.sh



Now we zip the files

A computer screen shot of a computer code

Description automatically generated

Now we download the file from kali the host machine

A computer screen shot of white text

Description automatically generated