ALBUKHARY INTERNATIONAL UNIVERSITY

SCHOOL OF COMPUTING & INFORMATICS

Course Title : **OPERATING SYSTEMS**
Course Code : **CCC 2123**

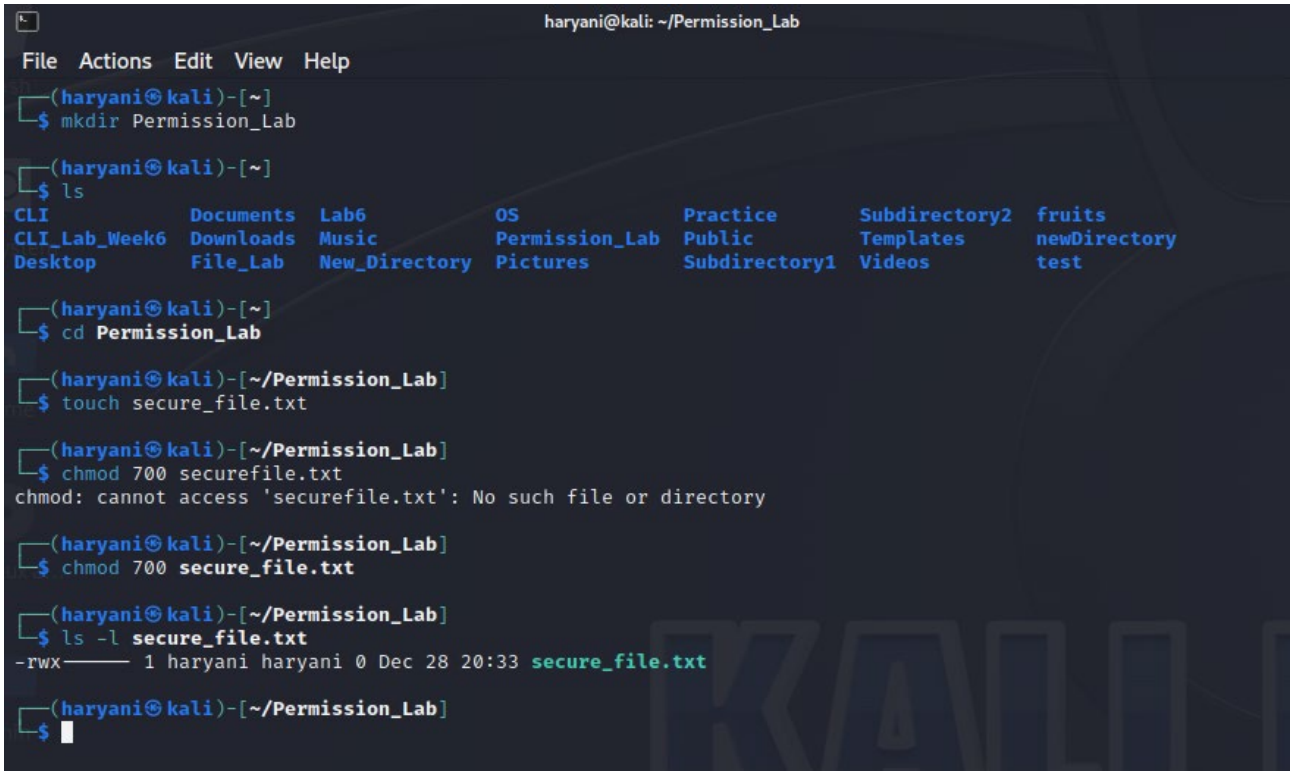
LAB EXERCISE
(WEEK 8)

Instructions:

Using the Command Line Interface (CLI) for Linux that we have learned and used so far, please execute the following tasks:

Task 1: Permission Setup

- Create a new directory named "Permission_Lab."
- Inside this directory, create a file named "secure_file.txt."
- Set the permissions to allow the owner full access, the group read-only access, and others no access.



Create a new directory named "Permission_Lab"
mkdir Permission_Lab

Move into the directory

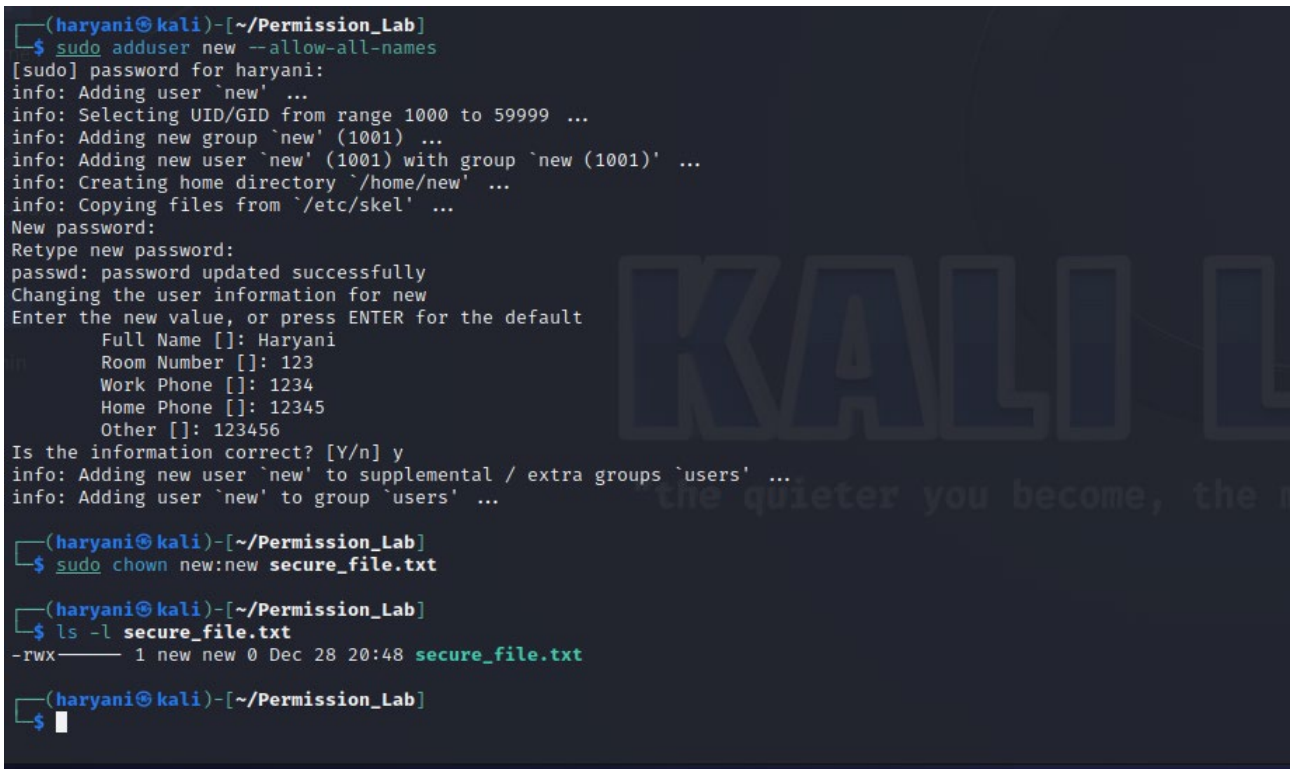
cd Permission_Lab

Create a file named "secure_file.txt"
touch secure_file.txt

Set the permissions
chmod 700 secure_file.txt

Task 2: Ownership Change

- Change the ownership of "secure_file.txt" to another user on the system.
- Verify the ownership change.



Before giving an ownership, we need to know who the user is.

#Create new user call “new:
Sudo adduser new - -allow-all-names
Enter password to the system, then enter all required information.

# Change the ownership of "secure_file.txt" to another user
sudo chown new:new secure_file.txt

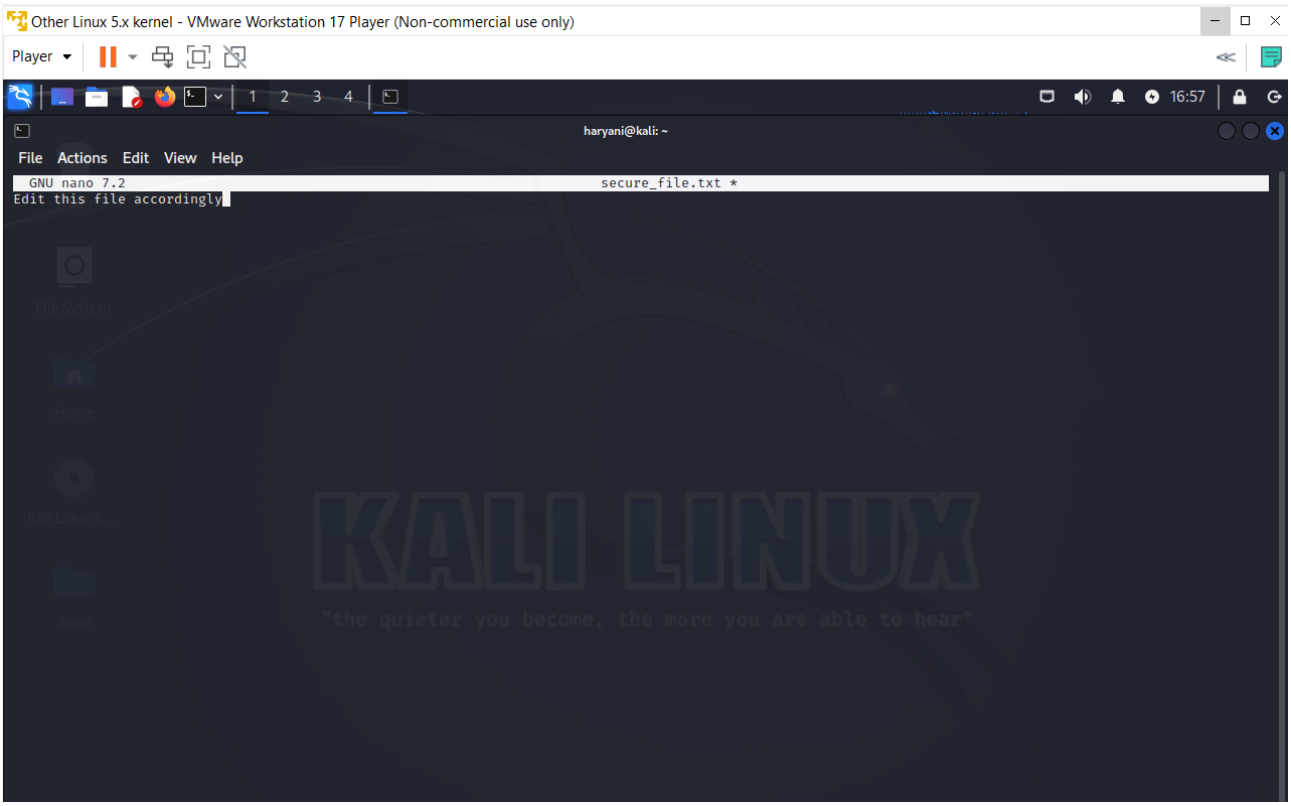
Verify the ownership change
ls -l secure_file.txt

Task 3: Permission Testing

- Attempt to edit "secure_file.txt" as the owner and a different user.
- Note the outcomes and any error messages received.

Attempt to edit "secure_file.txt" as the owner
nano secure_file.txt

# Attempt to edit "secure_file.txt" as a different user
sudo nano secure_file.txt



*Note: The difference between nano file.txt and sudo nano file.txt lies in the level of permissions and access to the file.

nano file.txt:

- When you use this command without sudo, you are opening the file file.txt in the nano text editor with your current user's permissions.
- You can edit the file and save changes, but you are restricted by the permissions associated with your user account. If the file requires elevated privileges (e.g., it's owned by another user or is in a system directory), you might encounter permission issues.

sudo nano file.txt:

- The sudo command stands for "superuser do" and is used to execute a command with elevated privileges.
- When you use sudo nano file.txt, you are opening the file with superuser or root permissions. This allows you to edit and save changes to files that require higher privileges than your user account possesses.
- Be cautious when using sudo as it grants you elevated access, and modifications made with it can have system-wide consequences.