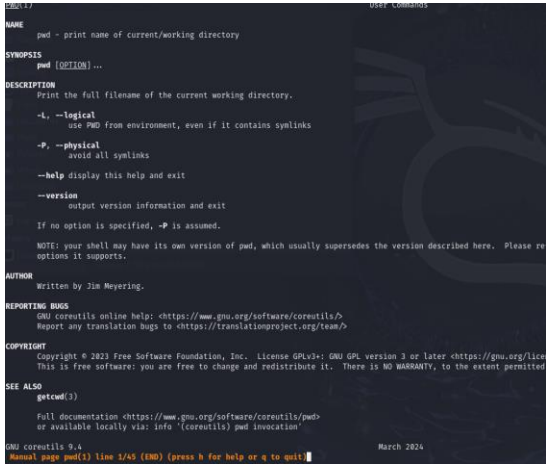
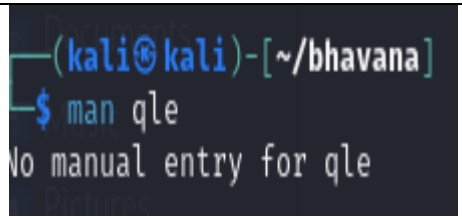
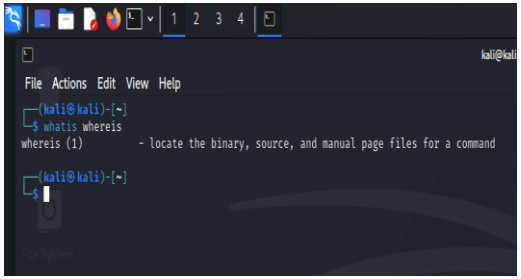
Topic Name:

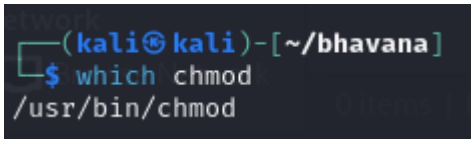
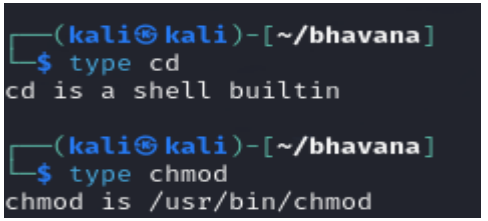
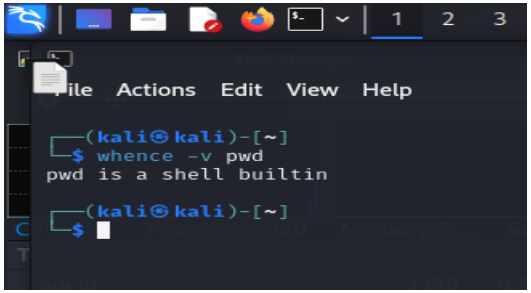
The main aim of this lab session is to provide hands-on experience on

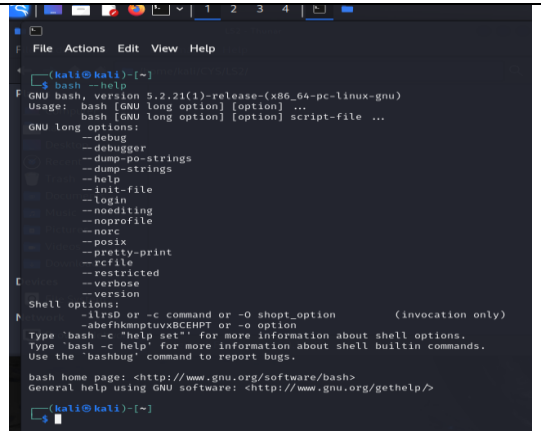
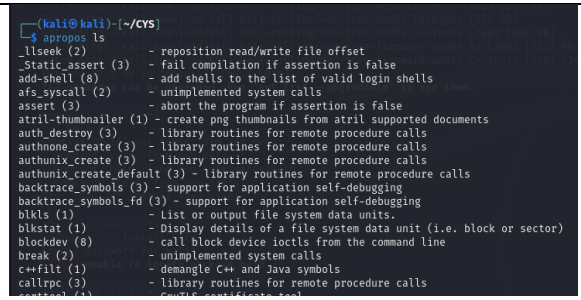
- Getting Help
- Basic Commands
- Navigation
- File System
- simple shell script

1. Getting Help

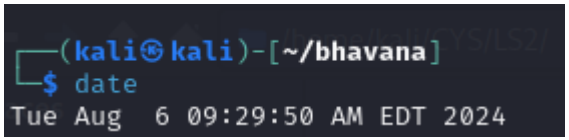
Task	Command Name	Syntax	Example	Screenshots
To get manual page for the known command	man	man <command>	man pwd	

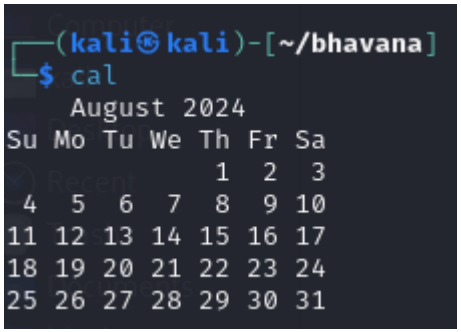
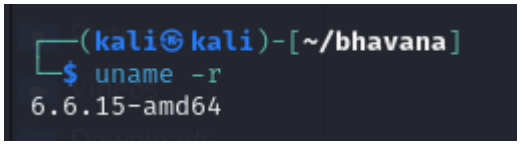
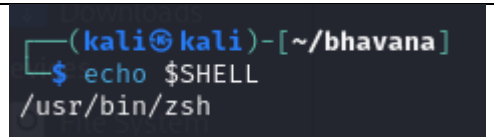
To get manual page for the unknown command	man	man <command>	man gle	
To know the source file binary	whatis whereis	whatis whereis	whatis whereis	

To know the path of the command	which	which <command>	which chmod	
To know the command is external or internal	type	type <command>	type cd type chmod	
To get help for the internal command	whence	whence <command>	whence –v pwd	

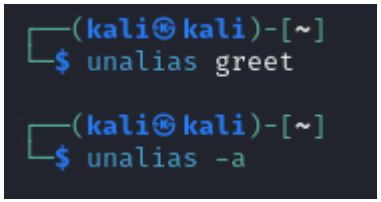
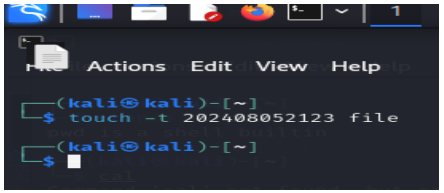
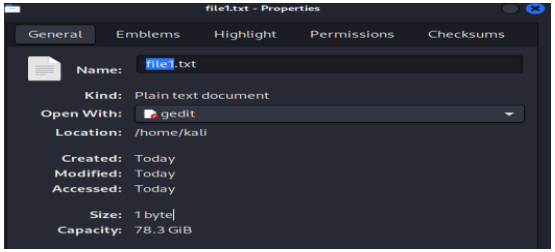
To list out bash commands	help	bash --help	bash --help	
To know the usage of the command	apropos	apropos <command>	apropos ls	

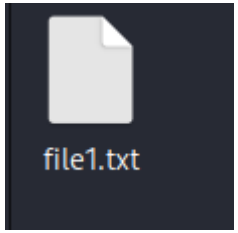
2. Basic Commands

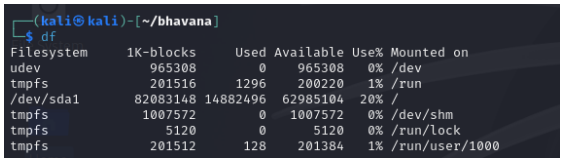
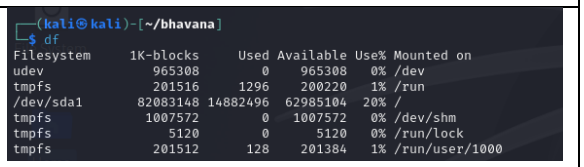
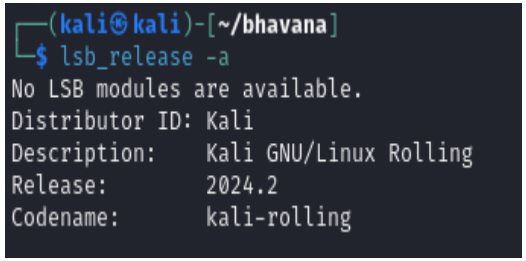
Task	Command Name	Syntax	Example	Screenshots
To know today's date	date	date	date	

To print calendar	cal	ncal	ncal 2024	
To print kernel version	uname -r or cat /proc/version	uname -r or cat /proc/version	uname -r	
To print default shell	echo $SHELL	echo $SHELL	echo $SHELL	

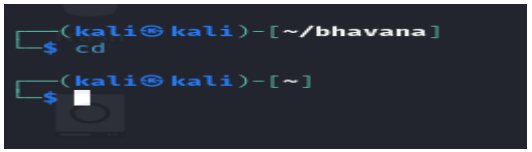
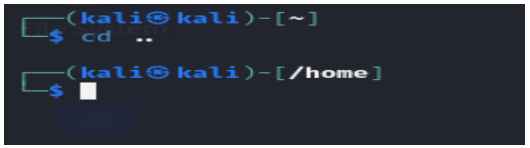
To print currently logged in user	whoami	whoami	whoami	
To create shortcut for command	alias	alias shortcut_name=command	alias greet = ‘echo Hello, anusha s patil’	

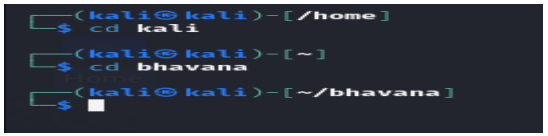
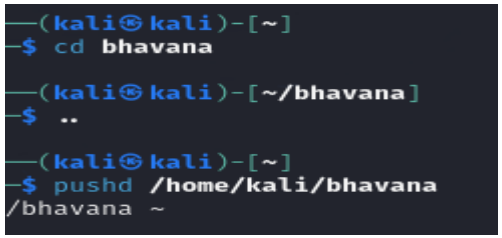
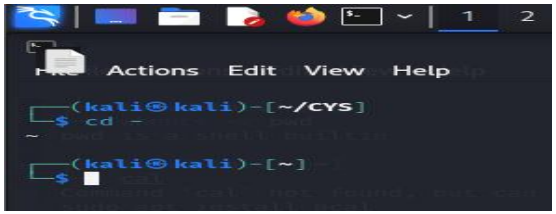
To delete shortcut	unalias	unalias shortcut_name	unalias greet unalias -a	
To change the timestamp of the file	touch	touch –t <yearmonthdaytime>	touch -t 202308052223 d1	 

To clear the screen	clear	clear	clear	
To create empty files	touch	touch.filename	touch file1.txt	 

To know disk usage	df	df	df	
To know free space in the system	df	df	df	
To know about the linux release	lsb_release -a	lsb_release -a	lsb_release -a	

3. Navigation

Task	Command	Syntax	Screenshots
To navigate home directory	cd	cd	
To navigate to the parent directory	cd ..	cd ..	

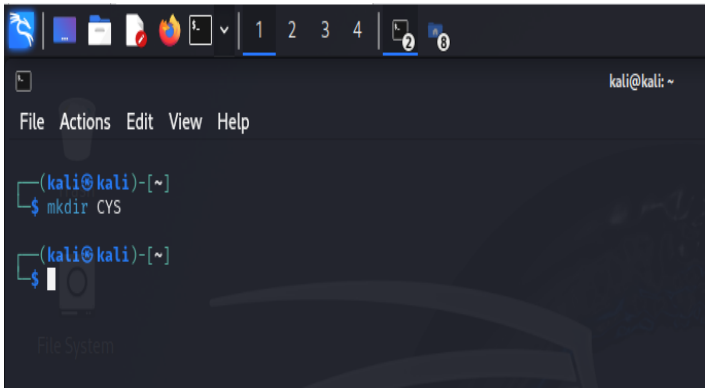
To navigate to the child directory	cd <directory_name>	cd <directory_name>	
Alternate command to cd	pushd	pushd <directory_name>	
To go back to the previous directory	cd -	cd -	

To go to the root directory	cd /	cd /	

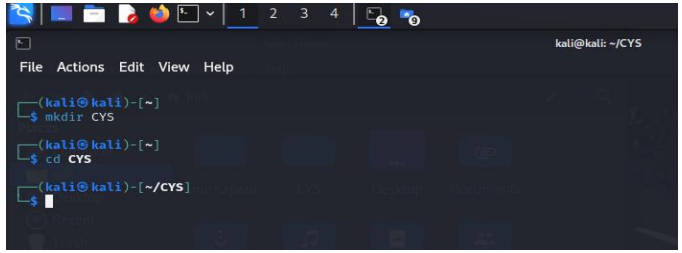
4. **File System**

Task	Syntax	Command
How to identify the file system		

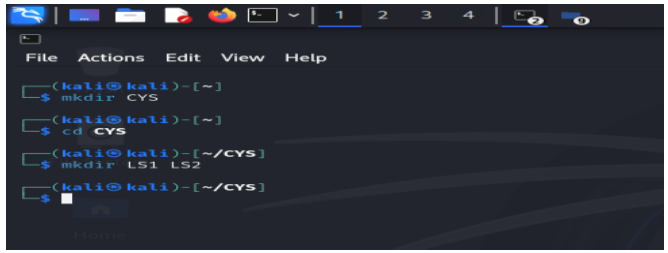
a. Create Folder “CYS”



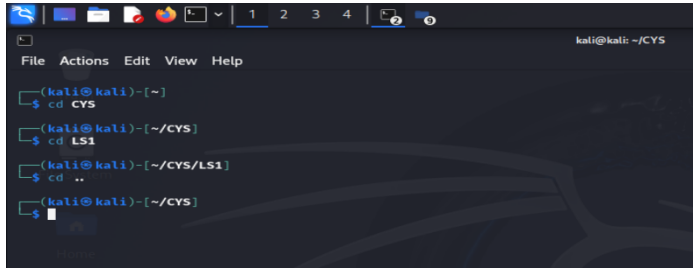
b. Navigate to CYS



c. Create folder LS1 and LS2 under CYS

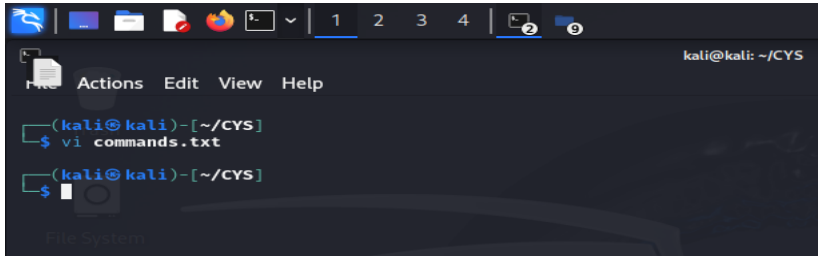


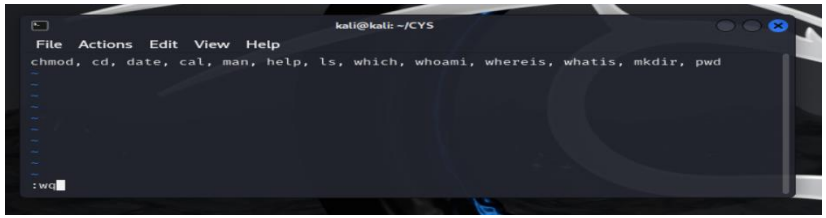
d. Go back to CYS



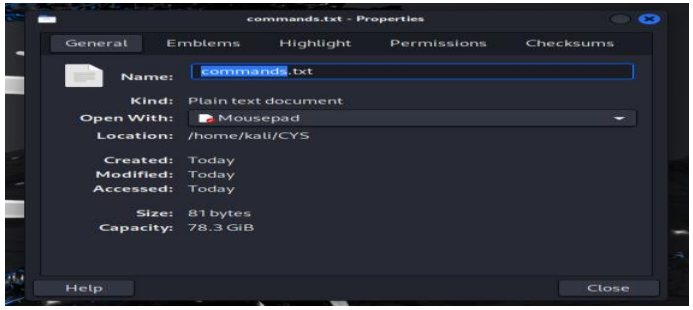
e. Working with Files

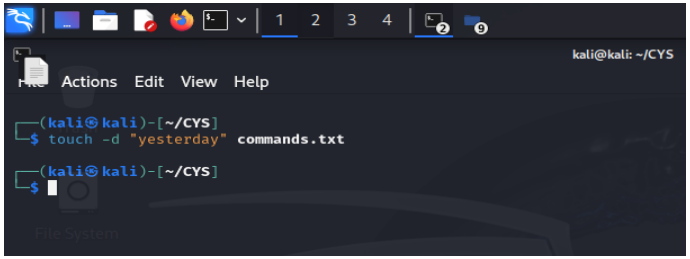
i. Add commands which you learnt during lab session in the file commands.txt

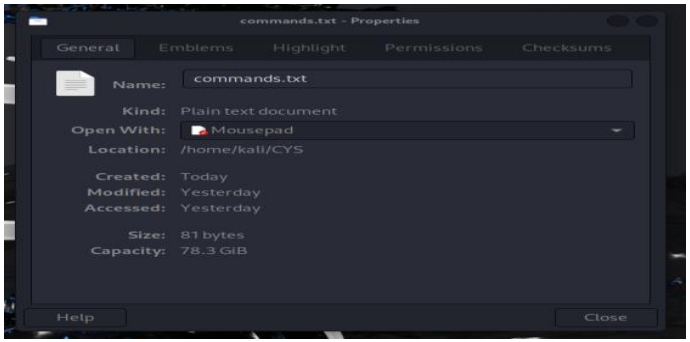




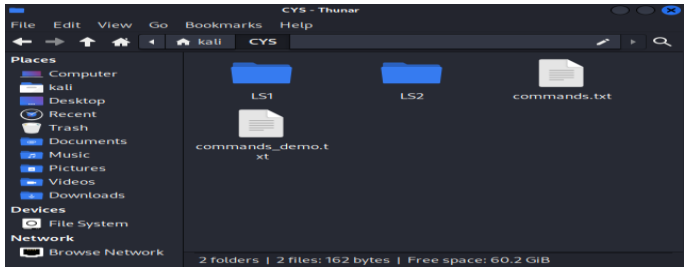
ii. Change the timestamp of the file to yesterday



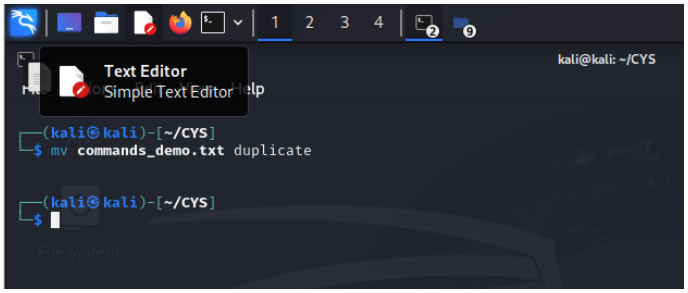


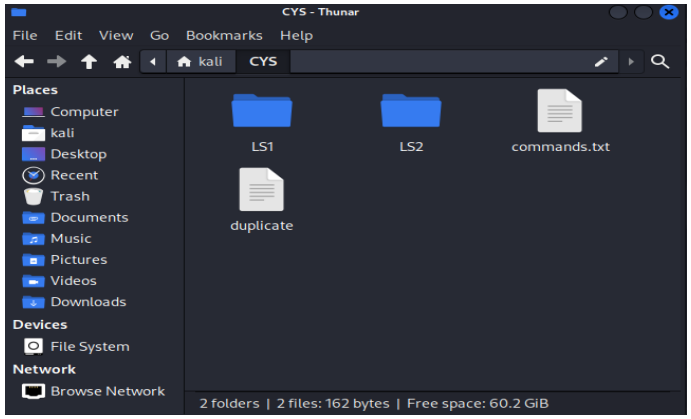


iii. Copy the contents from the file commands.txt to commands_demo.txt

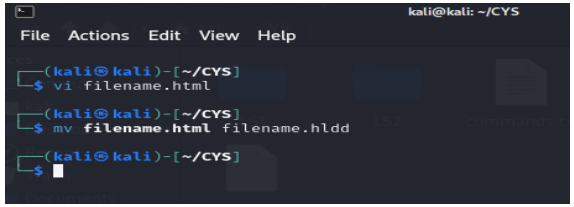


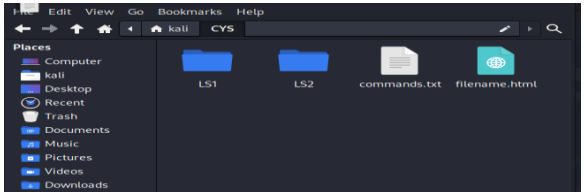
iv. Rename the file commands_demo.txt to duplicate

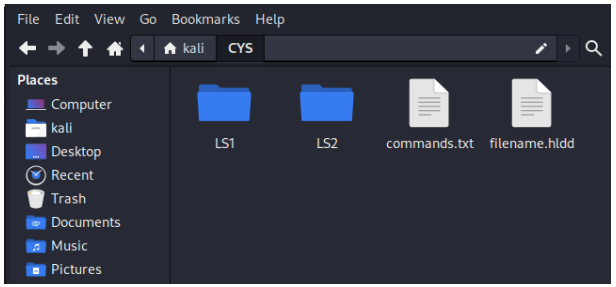




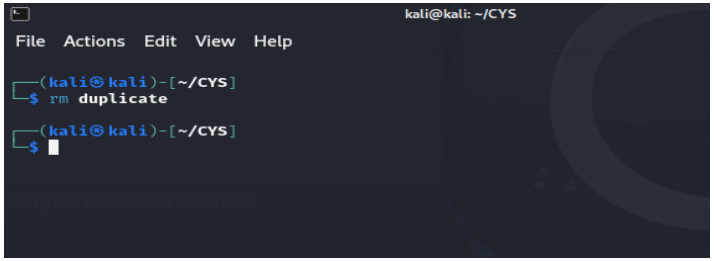
v. Rename all .html to .hldd



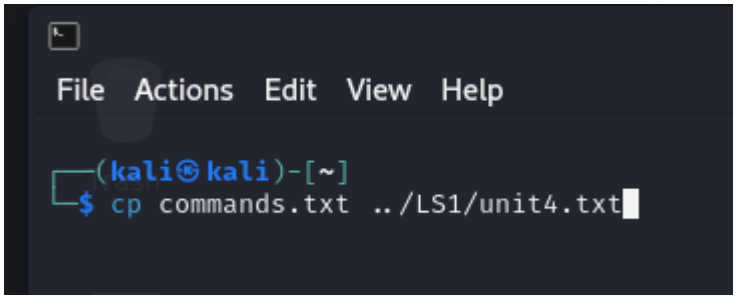




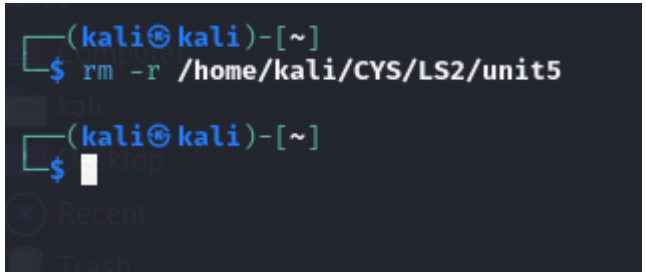
vi. Delete the file duplicate



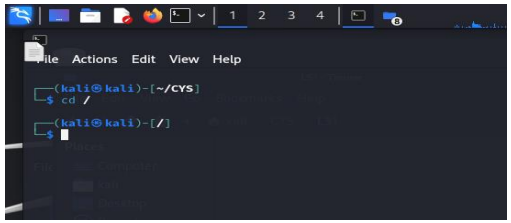
vii. Copy the contents commands.txt to unit4 and unit5 (using relative path)



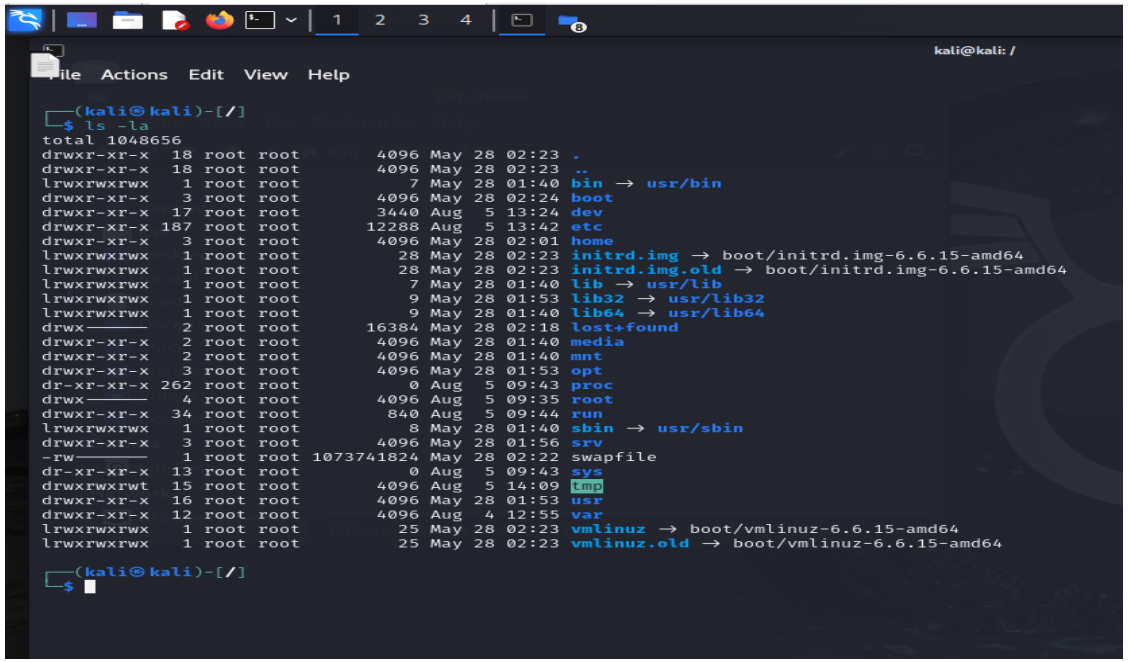
viii. Delete the contents from unit5 (using absolute path)



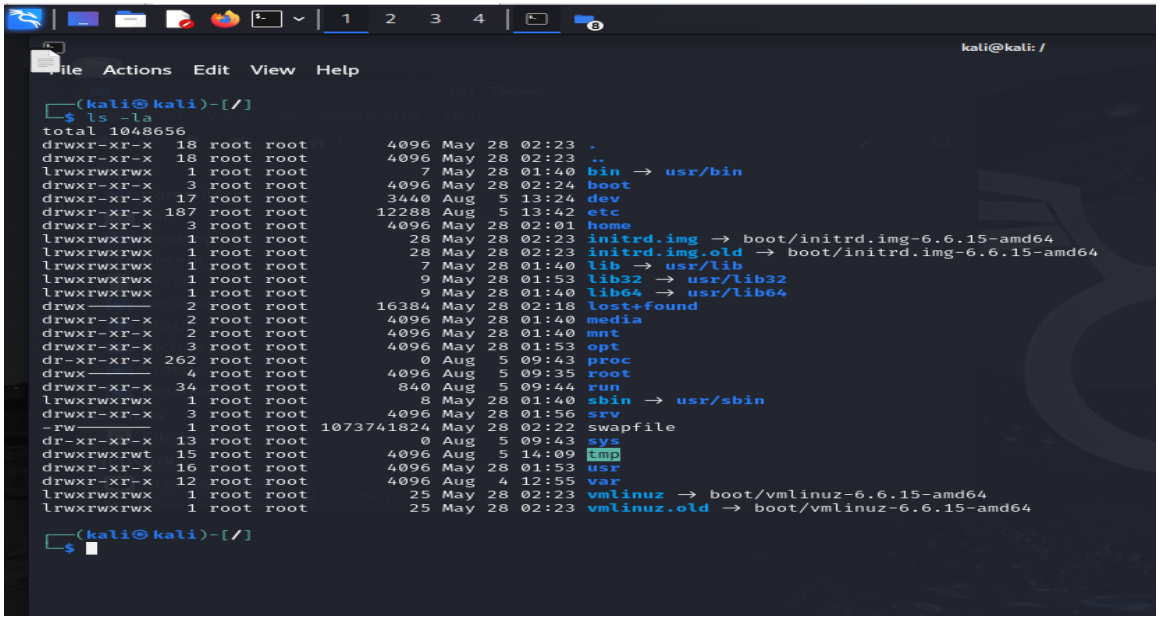
ix. Navigate to root



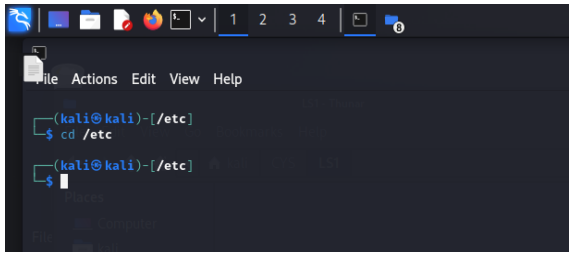
x. List all the files under root



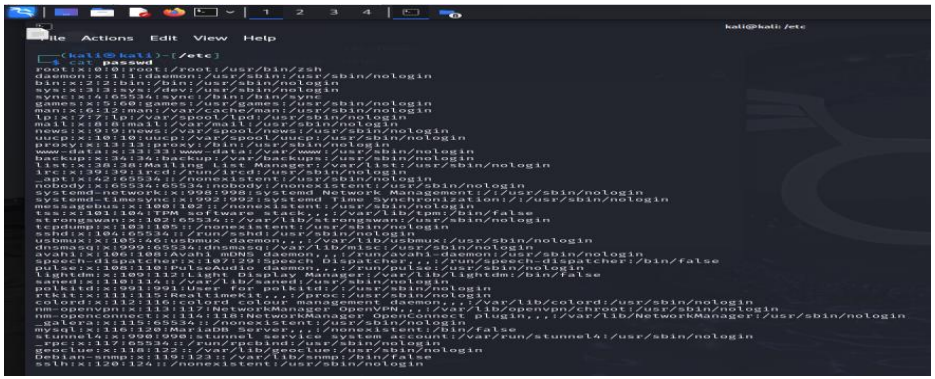
xi. Explore all the folders (Do not delete any folder)



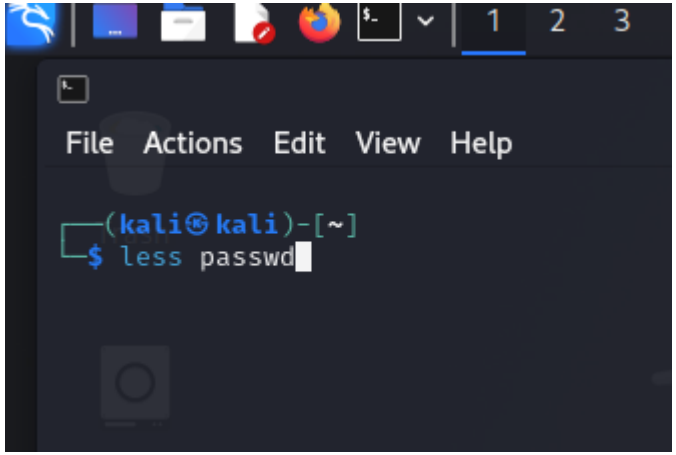
xii. Navigate to /etc/passwd



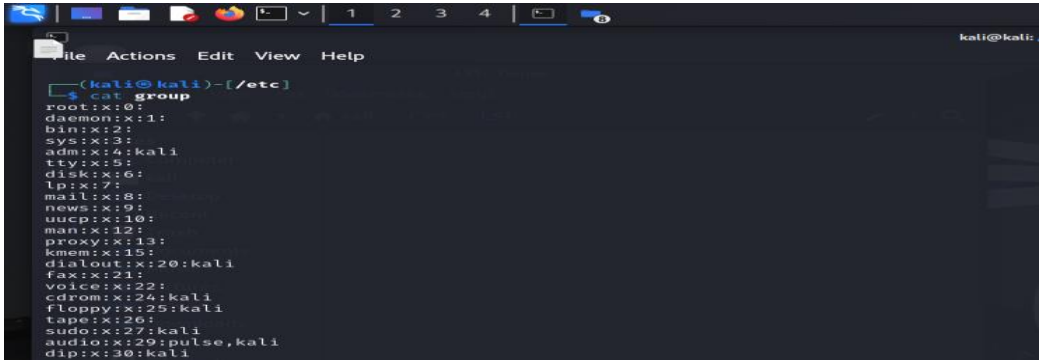
xiii. Open the file passwd



xiv. Explore the file passwd



xv. Navigate to /etc/group and explore



f. Difference between

i. GUI vs. CLI

GUI	CLI
User interact with the system with graphical elements such as icons, menus, images, etc.	Users interact with the system using various commands in the command prompt window.
GUI requires various input devices to interact with the system, such as a keyboard, mouse, etc	CLI requires only a keyboard to enter commands.
GUI consumes more RAM and processing power.	CLI consumes less RAM and processing power.

ii. man vs info

man	info
Typically provides detailed information on command usage, options, examples, and related commands.	Often provides more comprehensive and narrative-style documentation than man pages, with the ability to include more context, cross-references, and hierarchical structuring.
Displays the manual page for a command or function.	Displays more extensive documentation formatted using the Tex info system.
Syntax: man <command> Ex: man ls	Syntax: info <command> Ex: info ls

iii. which vs. whereis

which	**whereis**
Identifies the location of executables in the user's path.	'whereis' searches predefined directories and can find binaries, sources, and man pages.
Syntax: which <command> Ex: which ls	Syntax: whereis <command> Ex: whereis ls

iv. Terminal vs shell

terminal	shell
A terminal is an interface that allows users to interact with the computer.	A shell is an interface between the kernel and the software.
Focuses on providing a user interface for text input and output.	Executes commands entered by user, manages the execution of programs, and provides scripting capabilities.
Ex: GNOME Terminal, Windows Terminal	Ex: bash(Bourne Again Shell)

g. Write a simple shell script to print your name and your hobbies!