
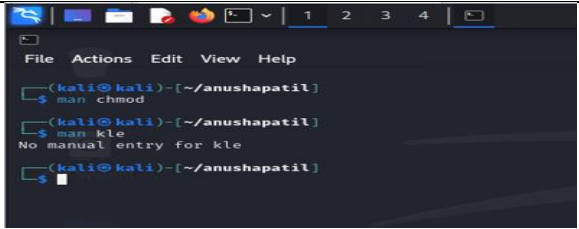


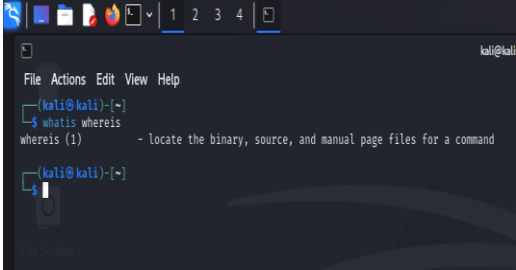
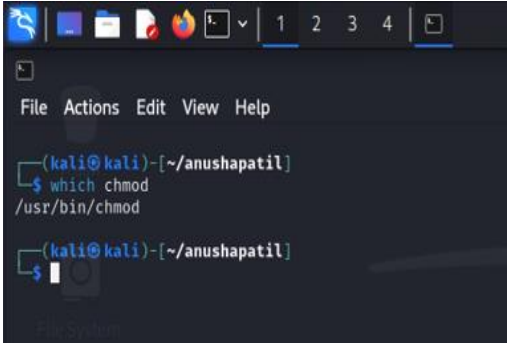
Topic Name:

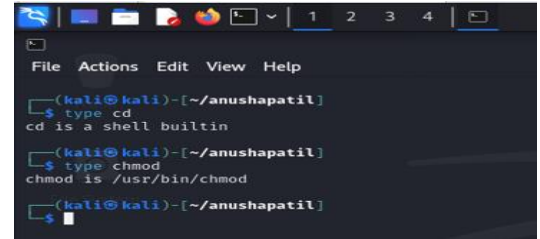
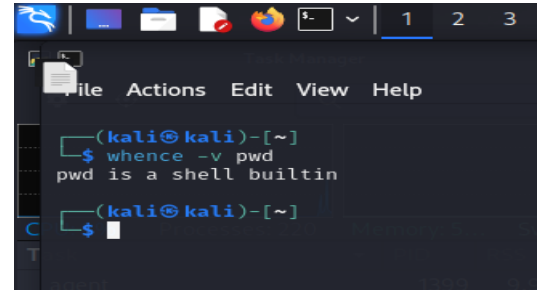
The main aim of this lab session is to provide hands-on experience on

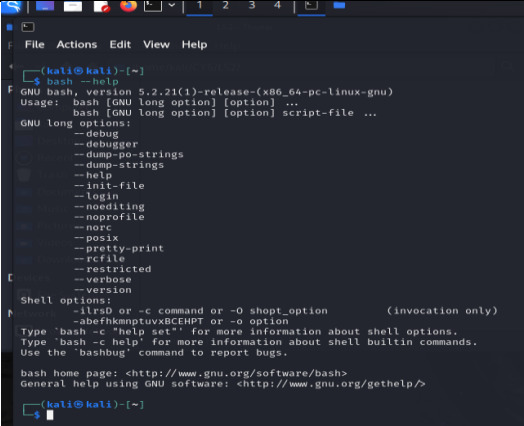
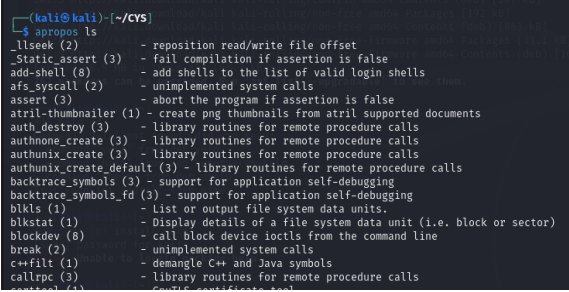
- Getting Help
- Basic Commands
- Navigation
- File System
- simple shell script

1. Getting Help

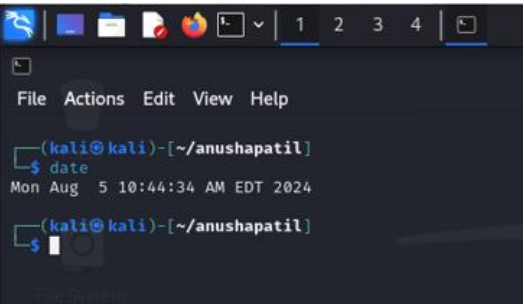
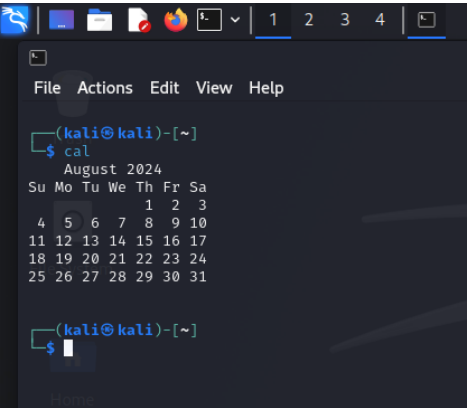
Task	Command Name	Syntax	Example	Screenshots
To get manual page for the known command	man	man <command>	man chmod	
To get manual page for the unknown command	man	man <command>	man kle	


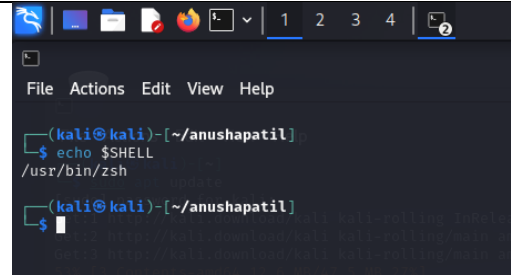
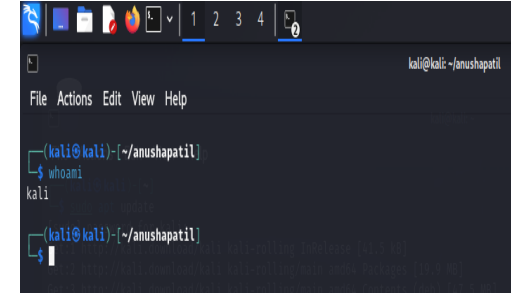
To know the source file binary	whatis whereis	whatis whereis	whatis whereis	 <pre> (kali@kali)-[~] \$ whatis whereis whereis (1) - locate the binary, source, and manual page files for a command (kali@kali)-[~] \$ whereis whereis: /usr/bin/whereis /usr/share/man/man1/whereis.1.gz </pre>
To know the path of the command	which	which <command>	which chmod	 <pre> (kali@kali)-[~/anushapatil] \$ which chmod /usr/bin/chmod (kali@kali)-[~/anushapatil] \$ </pre>

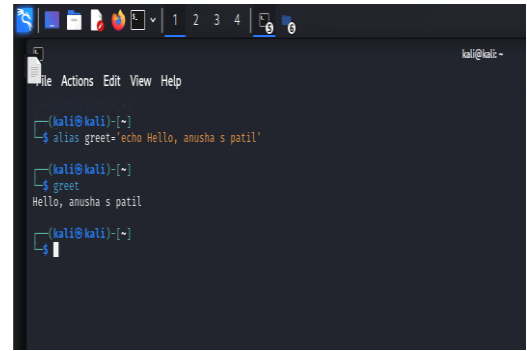
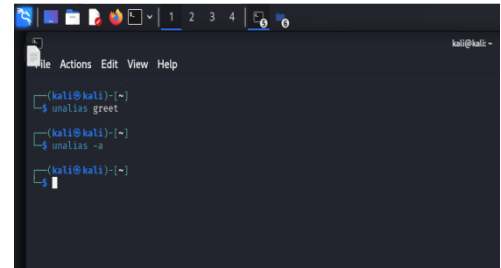
To know the command is external or internal	type	type <command>	type cd type chmod	 <pre> (kali@kali)~[/anushapatil] \$ type cd cd is a shell builtin (kali@kali)~[/anushapatil] \$ type chmod chmod is /usr/bin/chmod (kali@kali)~[/anushapatil] \$ </pre>
To get help for the internal command	whence	whence <command>	whence -v cd	 <pre> (kali@kali)~[~] \$ whence -v pwd pwd is a shell builtin (kali@kali)~[~] \$ </pre>

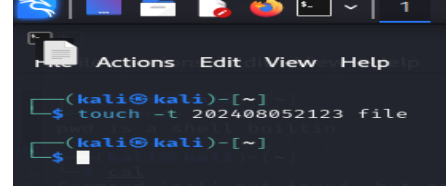
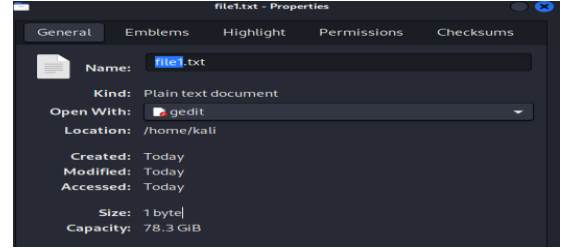
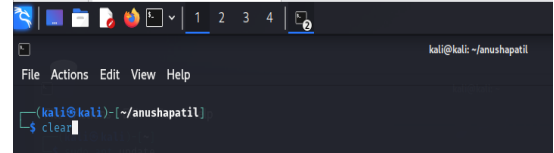
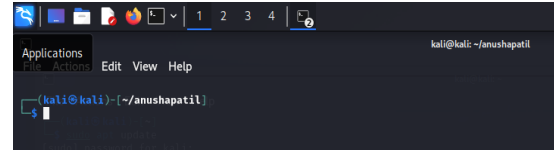
To list out bash commands	help	bash --help	bash --help	 <pre> (kali@kali)-[~] └─\$ bash --help GNU bash, version 5.2.21(1)-release (x86_64-pc-linux-gnu) Usage: bash [GNU long option] [option] ... GNU long options: --debug --debugger --dump-po-strings --dump-strings --help --init-file --login --nondetached --noprofile --norc --posix --pretty-print --rcfile --restricted --verbose --version Shell options: -lirsD or -c command or -O shopt_option (invocation only) -abefhkmnptuvxBCEHPT or -o option Type 'bash -c "help set"' for more information about shell options. Type 'bash -c help' for more information about shell builtin commands. Use the 'bashbug' command to report bugs. bash home page: <http://www.gnu.org/software/bash> General help using GNU software: <http://www.gnu.org/gethelp/> (kali@kali)-[~] └─\$ </pre>
To know the usage of the command	apropos	apropos <command>	apropos ls	 <pre> (kali@kali)-[~/cvs] └─\$ apropos ls _llseek (2) - reposition read/write file offset _Static_assert (3) - fail compilation if assertion is false add-shell (8) - add shells to the list of valid login shells afs_syscall (2) - unimplemented system calls assert (3) - abort the program if assertion is false atril-thumbnailer (1) - create png thumbnails from atril supported documents auth_destroy (3) - library routines for remote procedure calls authnone_create (3) - library routines for remote procedure calls authunix_create (3) - library routines for remote procedure calls authunix_create_default (3) - library routines for remote procedure calls backtrace_symbols (3) - support for application self-debugging backtrace_symbols_fd (3) - support for application self-debugging blkls (1) - List or output file system data units. blkstat (1) - Display details of a file system data unit (i.e. block or sector) blockdev (8) - call block device ioctls from the command line break (2) - unimplemented system calls c++filt (1) - demangle C++ and Java symbols callrpc (3) - library routines for remote procedure calls control (1) - Control certificate tool </pre>

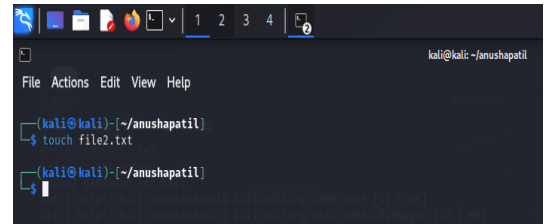
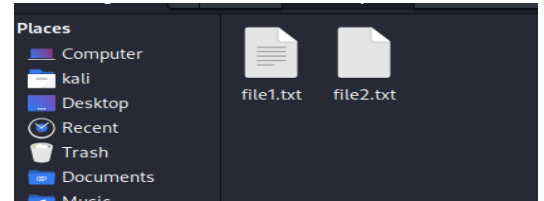
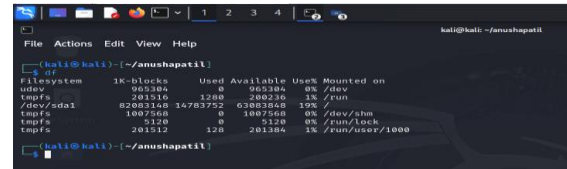
2. Basic Commands

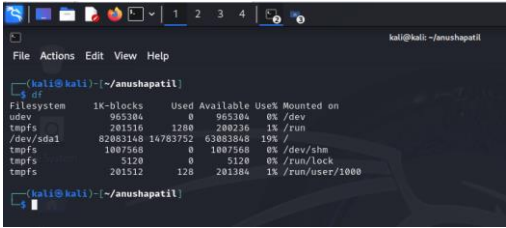
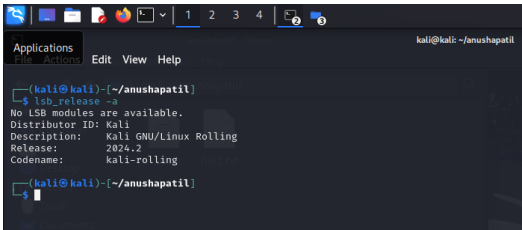
Task	Command Name	Syntax	Example	Screenshots
To know today's date	date	date	date	
To print calendar	cal	cal	cal	

To print kernel version	uname -r or cat /proc/version	uname -r or cat /proc/version	uname -r or cat /proc/version	 <pre> kali@kali:~/anushapatil \$ uname -r 6.6.11-amd64 kali@kali:~/anushapatil \$ cat /proc/version Linux version 6.6.11-amd64 (dev@kali.org) (gcc-12 (Debian 12.2.0-24) 12.2.0, GNU ld (GNU Binutils for Debian) 2.42) #1 SMP PREEMPT_DYNAMIC Kali 6.6.11-2ha11 (2024-05-27) </pre>
To print default shell	echo \$SHELL	echo \$SHELL	echo \$SHELL	 <pre> kali@kali:~/anushapatil \$ echo \$SHELL /usr/bin/zsh </pre>
To print currently logged in user	whoami	whoami	whoami	 <pre> kali@kali:~/anushapatil \$ whoami kali </pre>

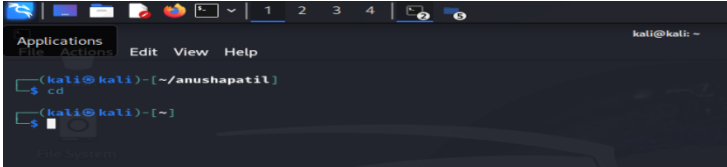
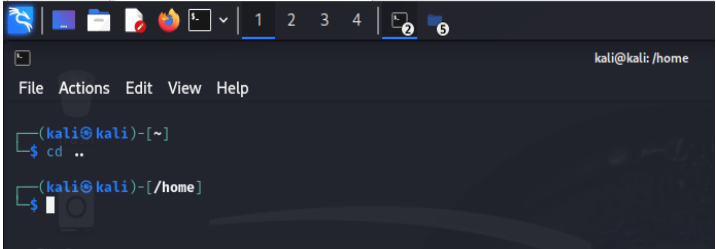
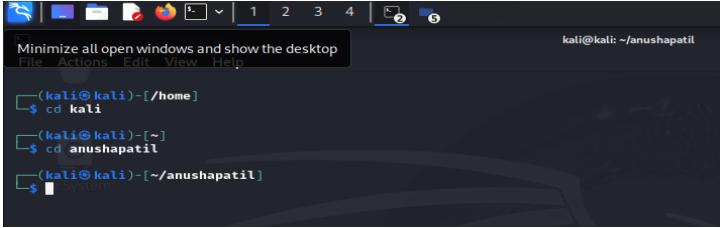
To create shortcut for command	alias	alias shortcut_name=command	alias greet = 'echo Hello, anusha s patil'	 <pre> kali@kali: ~ File Actions Edit View Help kali@kali:~\$ alias greet='echo Hello, anusha s patil' kali@kali:~\$ greet Hello, anusha s patil kali@kali:~\$ </pre>
To delete shortcut	unalias	unalias shortcut_name	unalias greet unalias -a	 <pre> kali@kali: ~ File Actions Edit View Help kali@kali:~\$ unalias greet kali@kali:~\$ unalias -a kali@kali:~\$ </pre>

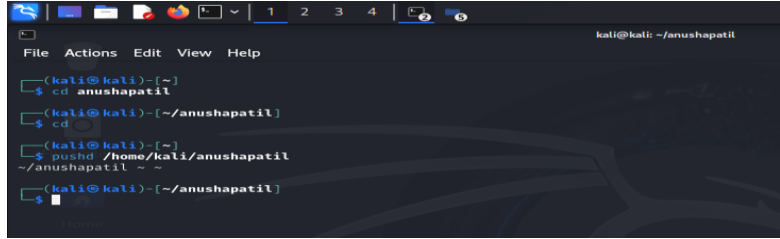
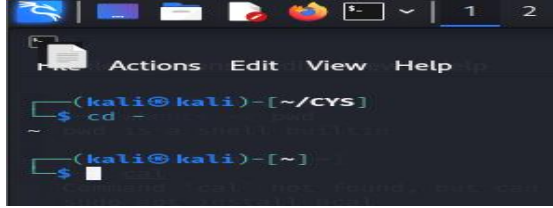
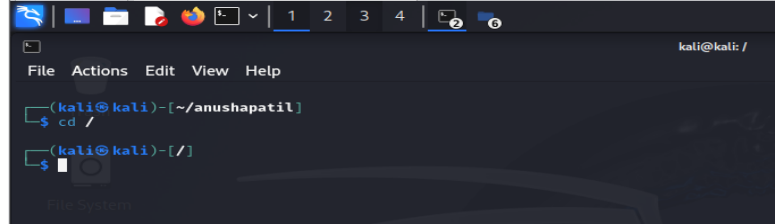
To change the timestamp of the file	touch	touch -t <yearmonthdaytime>	touch -t 202308052223 d1	 
To clear the screen	clear	clear	clear	 

To create empty files	touch	touch.filename	touch d1.txt	 <pre> kali@kali: ~/anushapatil File Actions Edit View Help (kali@kali)~/anushapatil \$ touch file2.txt (kali@kali)~/anushapatil \$ </pre>  <p>Places</p> <ul style="list-style-type: none"> Computer kali Desktop Recent Trash Documents Music <p>file1.txt file2.txt</p>
To know disk usage	df	df	df	 <pre> kali@kali: ~/anushapatil File Actions Edit View Help (kali@kali)~/anushapatil \$ df Filesystem 1k-blocks Used Available Use% Mounted on udev 965384 0 965384 0% /dev tmpfs 201316 0 201316 0% /run /dev/sda1 82003148 16783752 63003648 19% / tmpfs 1007268 0 1007268 0% /dev/shm tmpfs 5120 0 5120 0% /run/lock tmpfs 201312 0 201312 0% /run/user/1000 </pre>

To know free space in the system	df	df	df	 <pre> kali@kali: ~/anushapatil File Actions Edit View Help kali@kali:~/anushapatil \$ df Filesystem 1K-blocks Used Available Use% Mounted on udev 965384 0 965384 0% /dev tmpfs 201516 1280 200236 1% /run /dev/sda1 82083148 16783752 63083848 19% / tmpfs 1007568 0 1007568 0% /dev/shm tmpfs 5120 0 5120 0% /run/lock tmpfs 201512 128 201384 1% /run/user/1000 </pre>
To know about the linux release	lsb_release -a	lsb_release -a	lsb_release -a	 <pre> kali@kali: ~/anushapatil Applications File Actions Edit View Help kali@kali:~/anushapatil \$ lsb_release -a No LSB modules are available. Distributor ID: Kali Description: Kali GNU/Linux Rolling Release: 2024.2 Codename: kali-rolling </pre>

3. Navigation

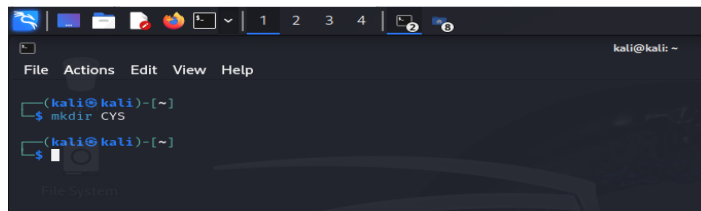
Task	Command	Syntax	Screenshots
To navigate home directory	cd	cd	
To navigate to the parent directory	cd ..	cd ..	
To navigate to the child directory	cd <directory_name>	cd <directory_name>	

Alternate command to cd	pushd	pushd <directory_name>	 <pre> kali@kali: ~/anushapatil File Actions Edit View Help (kali@kali)-[~] \$ cd anushapatil (kali@kali)-[~/anushapatil] \$ cd (kali@kali)-[~] \$ pushd /home/kali/anushapatil ~/anushapatil ~ ~ (kali@kali)-[~/anushapatil] \$ </pre>
To go back to the previous directory	cd -	cd -	 <pre> kali@kali: ~/CYS File Actions Edit View Help (kali@kali)-[~/CYS] \$ cd - ~ (kali@kali)-[~] \$ </pre>
To go to the root directory	cd /	cd /	 <pre> kali@kali: / File Actions Edit View Help (kali@kali)-[~/anushapatil] \$ cd / (kali@kali)-[/] \$ </pre>

4. File System

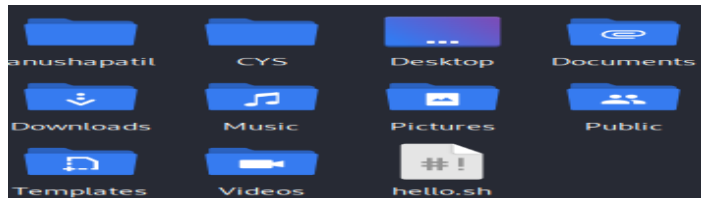
Task	Syntax	Command
How to identify the file system		

a. Create Folder “CYS”

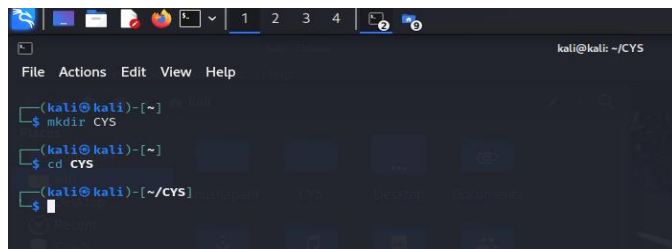


```
kali@kali: ~  
$ mkdir CYS  
$
```

The screenshot shows a terminal window with the command `mkdir CYS` being executed. The prompt is `(kali@kali)-[~]`. The terminal has a dark background with blue and green text.



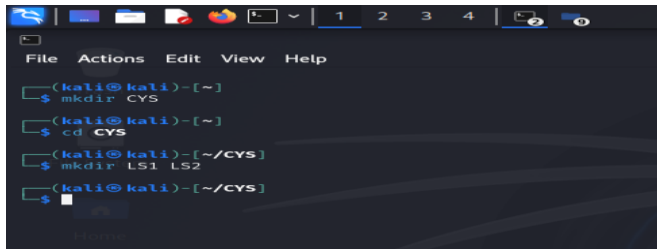
b. Navigate to CYS



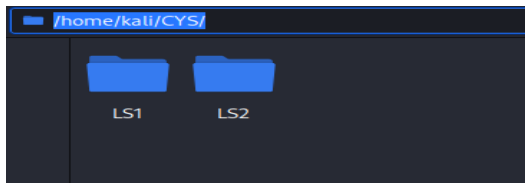
```
kali@kali: ~  
$ mkdir CYS  
(kali@kali)-[~]  
$ cd CYS  
(kali@kali)-[~/CYS]  
$
```

The screenshot shows a terminal window with the command `cd CYS` being executed. The prompt is `(kali@kali)-[~]`. The terminal has a dark background with blue and green text.

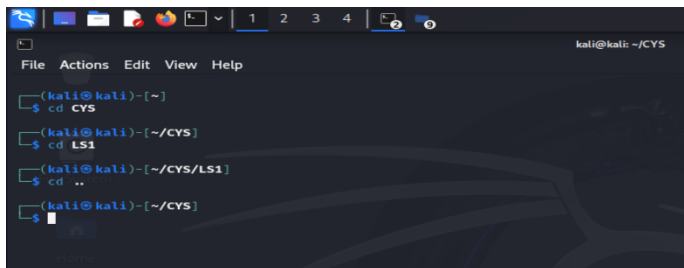
- c. Create folder LS1 and LS2 under CYS



```
(kali@kali)-[~]  
$ mkdir CYS  
(kali@kali)-[~]  
$ cd CYS  
(kali@kali)-[~/CYS]  
$ mkdir LS1 LS2  
(kali@kali)-[~/CYS]  
$
```



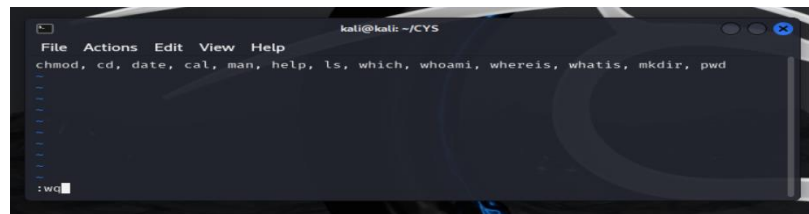
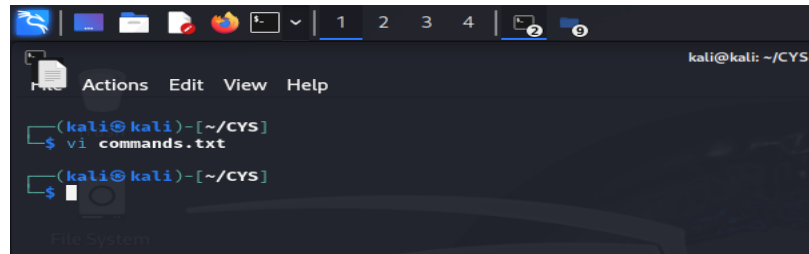
- d. Go back to CYS



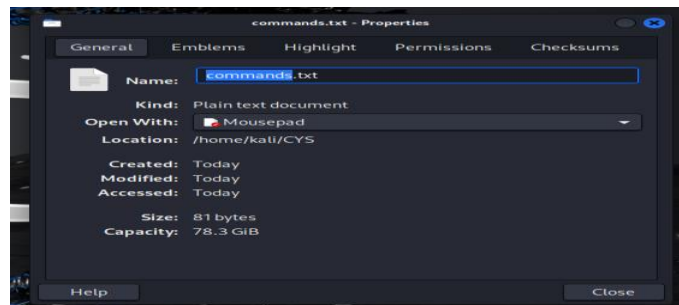
```
(kali@kali)-[~]  
$ cd CYS  
(kali@kali)-[~/CYS]  
$ cd LS1  
(kali@kali)-[~/CYS/LS1]  
$ cd ..  
(kali@kali)-[~/CYS]  
$
```

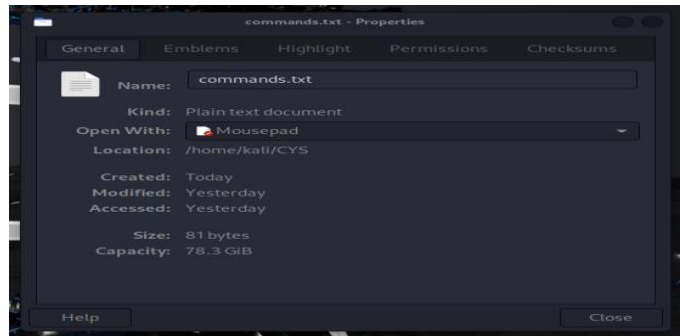
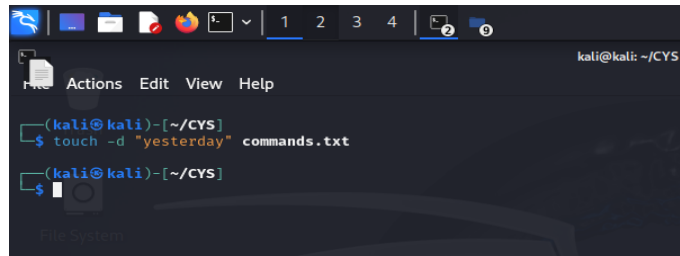
e. Working with Files

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

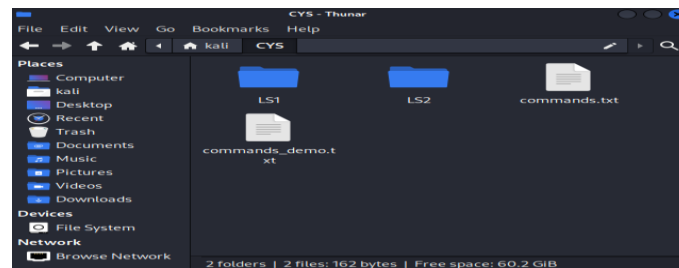


- ii. Change the timestamp of the file to yesterday

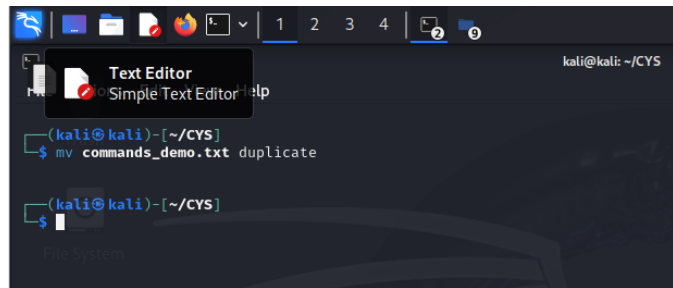




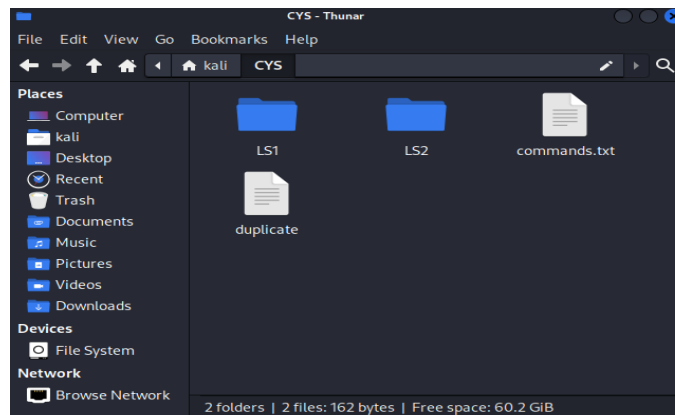
- iii. Copy the contents from the file `commands.txt` to `commands_demo.txt`



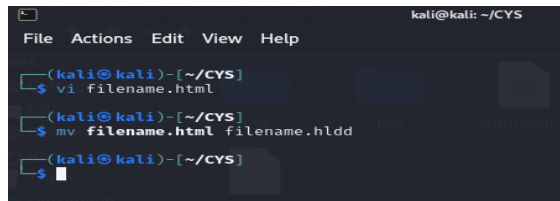
- iv. Rename the file `commands_demo.txt` to duplicate



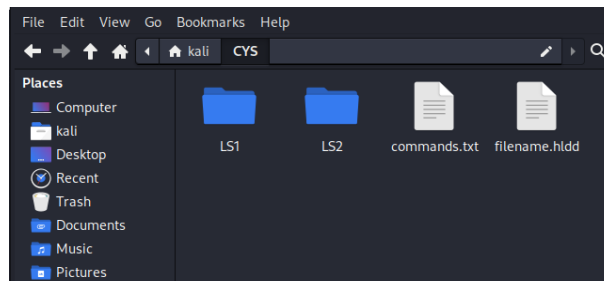
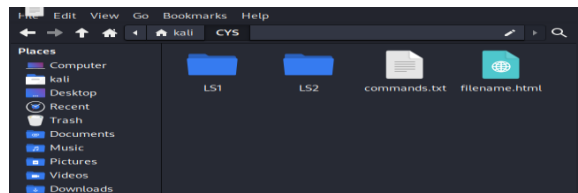
A terminal window titled 'kali@kali: ~/CYS' showing the command `mv commands_demo.txt duplicate` being executed. The prompt is `(kali@kali)~[~/CYS]`. A 'Text Editor' window is open in the background.



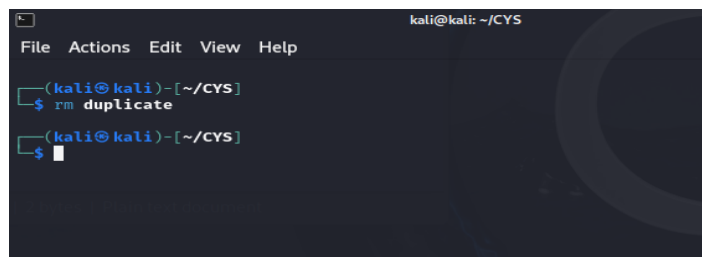
- v. Rename all `.html` to `.hldd`



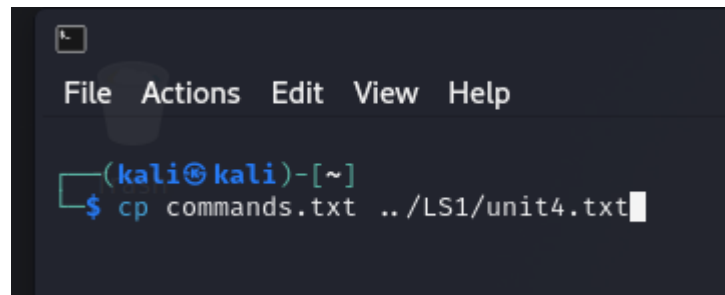
A terminal window titled 'kali@kali: ~/CYS' showing the command `mv filename.html filename.hldd` being executed. The prompt is `(kali@kali)~[~/CYS]`. The command is shown being typed and then executed.



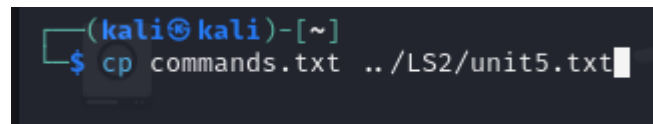
vi. Delete the file duplicate



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

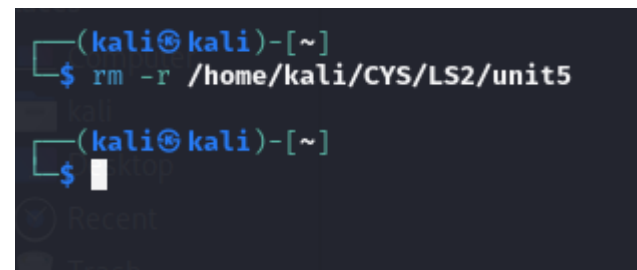


```
File Actions Edit View Help
(kali㉿kali)-[~]
$ cp commands.txt ../LS1/unit4.txt
```



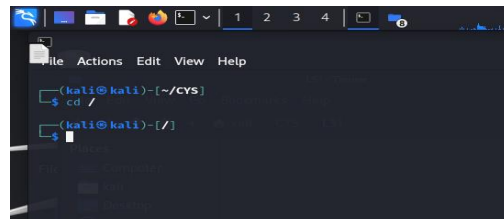
```
(kali㉿kali)-[~]
$ cp commands.txt ../LS2/unit5.txt
```

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



```
(kali㉿kali)-[~]
$ rm -r /home/kali/CYS/LS2/unit5
(kali㉿kali)-[~]
$
```

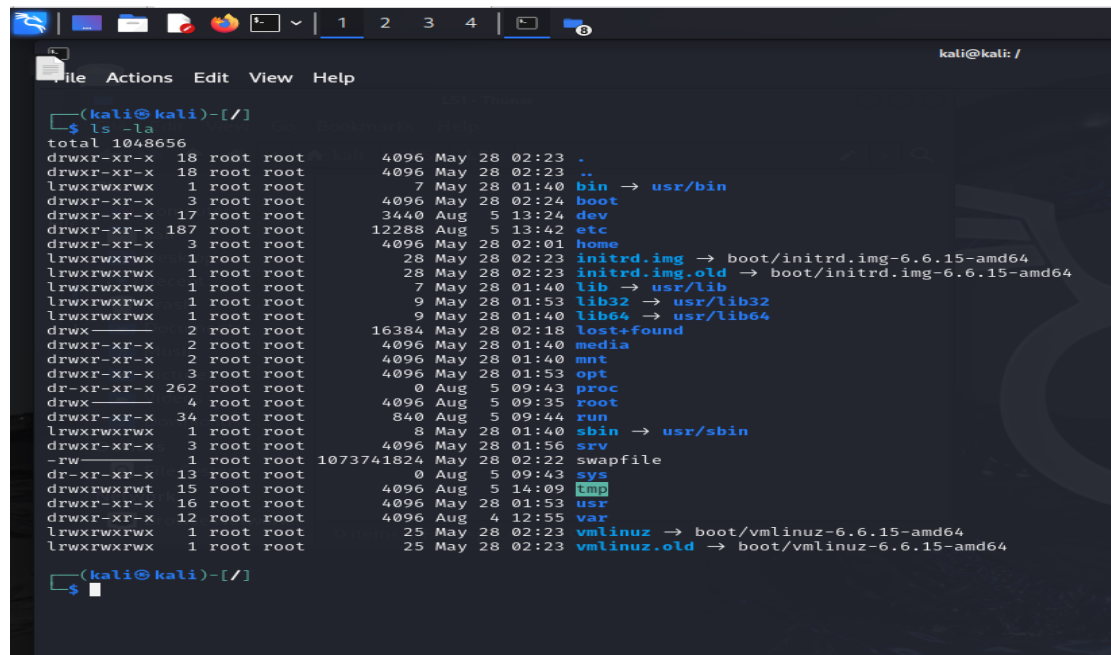
- ix. Navigate to root



A terminal window with a dark background. The prompt is `(kali@kali)-[~/CYS]`. The user enters `cd /`, and the prompt changes to `(kali@kali)-[/]`.

```
(kali@kali)-[~/CYS]
$ cd /
(kali@kali)-[/]
```

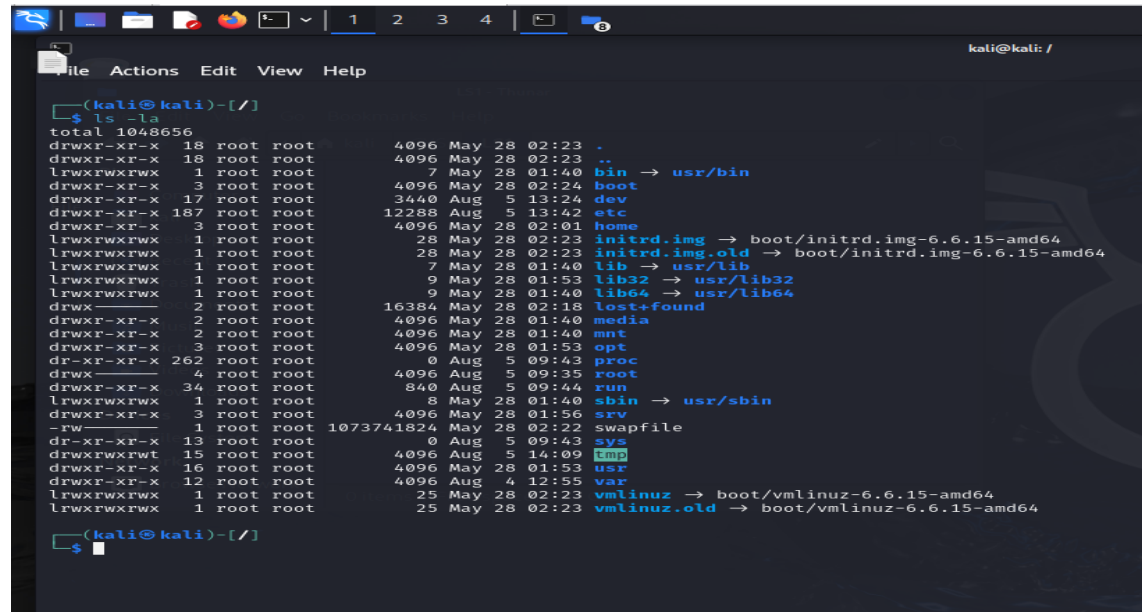
- x. List all the files under root



A terminal window showing the output of the `ls -la` command. The prompt is `(kali@kali)-[/]`. The output lists all files and directories in the root directory with their permissions, sizes, dates, and names. Some files are highlighted in blue, and some are highlighted in green.

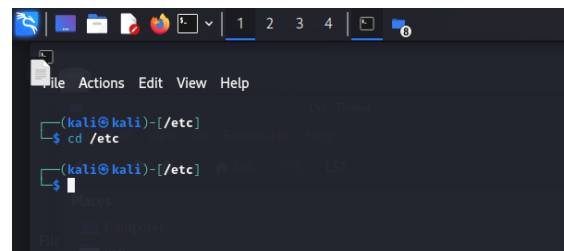
```
(kali@kali)-[/]
$ ls -la
total 1048656
drwxr-xr-x 18 root root 4096 May 28 02:23 .
drwxr-xr-x 18 root root 4096 May 28 02:23 ..
lrwxrwxrwx 1 root root 7 May 28 01:40 bin -> usr/bin
drwxr-xr-x 3 root root 4096 May 28 02:24 boot
drwxr-xr-x 17 root root 3440 Aug 5 13:24 dev
drwxr-xr-x 187 root root 12288 Aug 5 13:42 etc
drwxr-xr-x 3 root root 4096 May 28 02:01 home
lrwxrwxrwx 1 root root 28 May 28 02:23 initrd.img -> boot/initrd.img-6.6.15-amd64
lrwxrwxrwx 1 root root 28 May 28 02:23 initrd.img.old -> boot/initrd.img-6.6.15-amd64
lrwxrwxrwx 1 root root 7 May 28 01:40 lib -> usr/lib
lrwxrwxrwx 1 root root 9 May 28 01:53 lib32 -> usr/lib32
lrwxrwxrwx 1 root root 9 May 28 01:40 lib64 -> usr/lib64
drwx----- 2 root root 16384 May 28 02:18 lost+found
drwxr-xr-x 2 root root 4096 May 28 01:40 media
drwxr-xr-x 2 root root 4096 May 28 01:40 mnt
drwxr-xr-x 3 root root 4096 May 28 01:53 opt
dr-xr-xr-x 262 root root 0 Aug 5 09:43 proc
drwx----- 4 root root 4096 Aug 5 09:35 root
drwxr-xr-x 34 root root 840 Aug 5 09:44 run
lrwxrwxrwx 1 root root 8 May 28 01:40 sbin -> usr/sbin
drwxr-xr-x 3 root root 4096 May 28 01:56 srv
-rw----- 1 root root 1073741824 May 28 02:22 swapfile
dr-xr-xr-x 13 root root 0 Aug 5 09:43 sys
drwxrwxrwt 15 root root 4096 Aug 5 14:09 tmp
drwxr-xr-x 16 root root 4096 May 28 01:53 usr
drwxr-xr-x 12 root root 4096 Aug 4 12:55 var
lrwxrwxrwx 1 root root 25 May 28 02:23 vmlinuz -> boot/vmlinuz-6.6.15-amd64
lrwxrwxrwx 1 root root 25 May 28 02:23 vmlinuz.old -> boot/vmlinuz-6.6.15-amd64
```

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



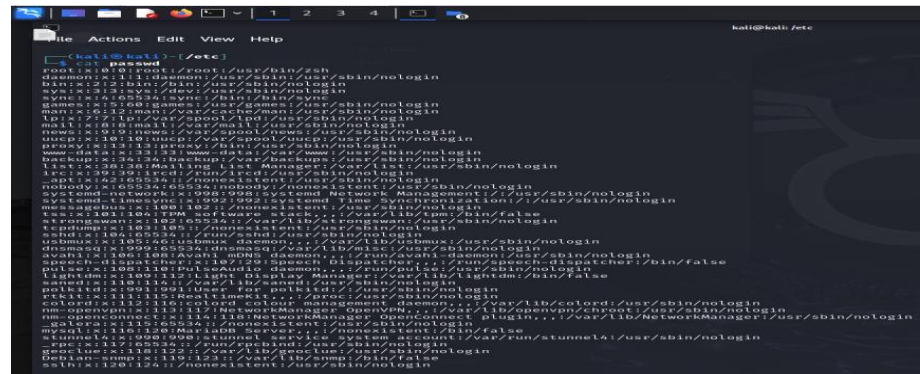
```
(kali@kali)-[/]  
$ ls -ls  
total 1048656  
drwxr-xr-x 18 root root      4096 May 28 02:23 .  
drwxr-xr-x 18 root root      4096 May 28 02:23 ..  
lrwxrwxrwx 1 root root         7 May 28 01:40 bin -> usr/bin  
drwxr-xr-x 3 root root      4096 May 28 02:24 boot  
drwxr-xr-x 17 root root      3440 Aug 5 13:24 dev  
drwxr-xr-x 187 root root    12288 Aug 5 13:42 etc  
drwxr-xr-x 3 root root      4096 May 28 02:01 home  
lrwxrwxrwx 1 root root      28 May 28 02:23 initrd.img -> boot/initrd.img-6.6.15-amd64  
lrwxrwxrwx 1 root root      28 May 28 02:23 initrd.img.old -> boot/initrd.img-6.6.15-amd64  
lrwxrwxrwx 1 root root         7 May 28 01:40 lib -> usr/lib  
lrwxrwxrwx 1 root root         9 May 28 01:53 lib32 -> usr/lib32  
lrwxrwxrwx 1 root root         9 May 28 01:40 lib64 -> usr/lib64  
drwx----- 2 root root    16384 May 28 02:18 lost+found  
drwxr-xr-x 2 root root      4096 May 28 01:40 media  
drwxr-xr-x 2 root root      4096 May 28 01:40 mnt  
drwxr-xr-x 3 root root      4096 May 28 01:53 opt  
dr-xr-xr-x 262 root root      0 Aug 5 09:43 proc  
drwx----- 4 root root      4096 Aug 5 09:35 root  
drwxr-xr-x 34 root root      840 Aug 5 09:44 run  
lrwxrwxrwx 1 root root         8 May 28 01:40 sbin -> usr/sbin  
drwxr-xr-x 3 root root      4096 May 28 01:56 srv  
-rw----- 1 root root 1073741824 May 28 02:22 swapfile  
dr-xr-xr-x 13 root root      0 Aug 5 09:43 sys  
drwxrwxrwt 15 root root      4096 Aug 5 14:09 tmp  
drwxr-xr-x 16 root root      4096 May 28 01:53 usr  
drwxr-xr-x 12 root root      4096 Aug 4 12:55 var  
lrwxrwxrwx 1 root root      25 May 28 02:23 vmlinuz -> boot/vmlinuz-6.6.15-amd64  
lrwxrwxrwx 1 root root      25 May 28 02:23 vmlinuz.old -> boot/vmlinuz-6.6.15-amd64  
  
(kali@kali)-[/]  
$
```

- xii. Navigate to /etc/passwd



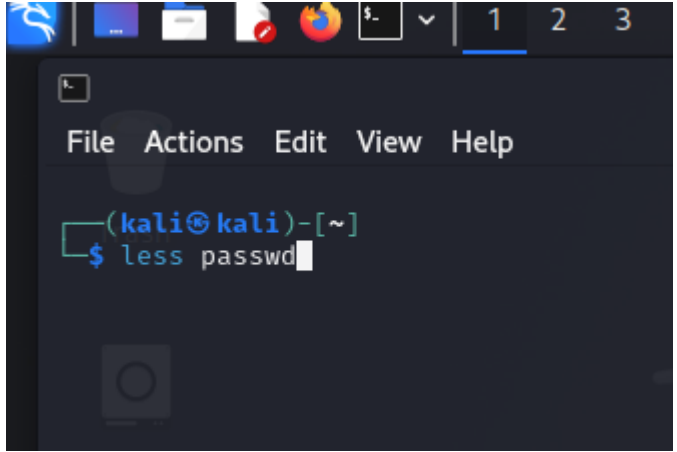
```
(kali@kali)-[/etc]  
$ cd /etc  
  
(kali@kali)-[/etc]  
$
```

xiii. Open the file passwd



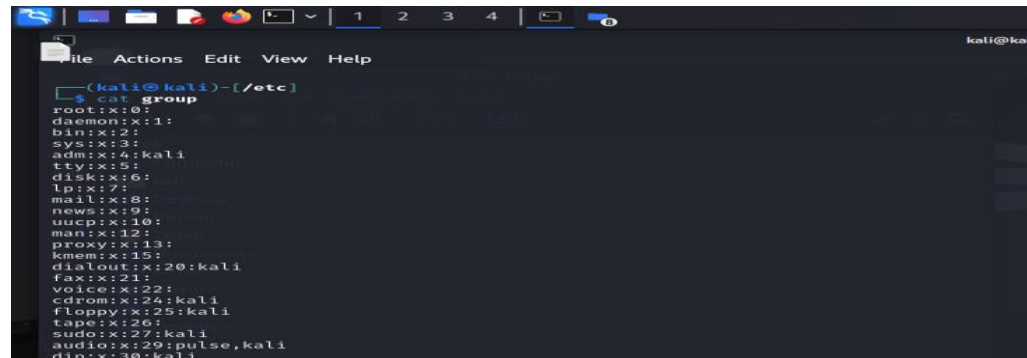
```
kali@kali:~$ cat /etc/passwd
root:x:0:0:root:/root:/usr/sbin/nologin
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:11:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
bach:x:34:34:bach:/usr/bach:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
cvs:x:42:65534:cvs:/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-networkd:x:999:999:systemd Network Management:/usr/sbin/nologin
systemd-timesyncd:x:992:992:systemd Time Synchronization:/usr/sbin/nologin
messagebus:x:180:182:/nonexistent:/usr/sbin/nologin
tss:x:101:100:tss:/nonexistent:/usr/sbin/nologin
rtorrent:x:102:105:rtorrent:/usr/sbin/nologin
rtorrent-x11:x:103:106:rtorrent-x11:/usr/sbin/nologin
rtorrent-x11-x11:x:104:107:rtorrent-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11:x:105:108:rtorrent-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11:x:106:109:rtorrent-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11:x:107:110:rtorrent-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11:x:108:111:rtorrent-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11:x:109:112:rtorrent-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11:x:110:113:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:111:114:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:112:115:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:113:116:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:114:117:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:115:118:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:116:119:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:117:120:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:118:121:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:119:122:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:x:120:123:rtorrent-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11-x11:/usr/sbin/nologin
```

xiv. Explore the file passwd



```
kali@kali:~$ less passwd
```

- xv. Navigate to /etc/group and explore



```
(kali@kali)-[/etc]
$ cat group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:kali
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:kali
fax:x:21:
voice:x:22:
cdrom:x:24:kali
floppy:x:25:kali
tape:x:26:
sudo:x:27:kali
audio:x:29:pulse,kali
dip:x:30:kali
```

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 is relatively simpler to use and is more user- friendly.	CLI is not very user-friendly because the user needs to memorize a lot of commands.
GUI is slower and prioritize ease of use over speed.	CLI is relatively faster and excels in efficiency for professional users.
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 Texinfo system.
Manual pages are divided into sections like NAME, SYNOPSIS, DESCRIPTION, OPTIONS, EXAMPLES, SEE ALSO, etc.	Organized into nodes and sections, allowing navigation through the document using links and menus.
Each man page is usually specific to a single command or function.	Can cover broader topics, sometimes encompassing multiple commands or concepts in a more integrated way.
Syntax: man <command> Ex: man ls	Syntax: info <command> Ex: info ls

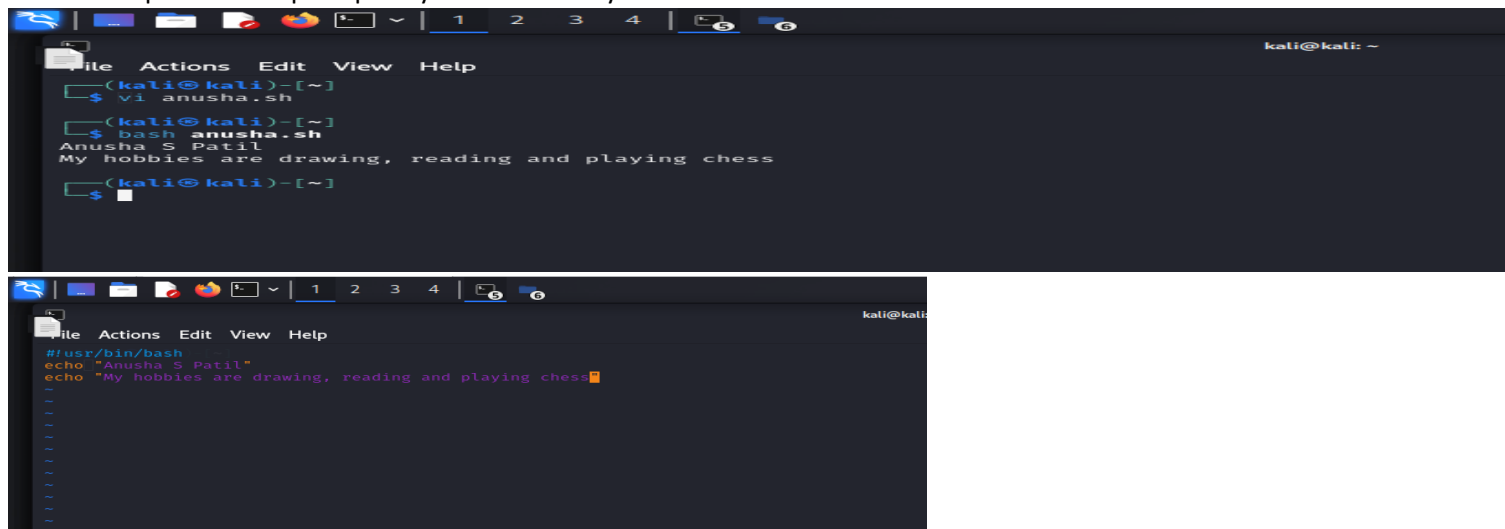
iii. which vs. whereis

which	whereis
Identifies the location of executables in the user's path.	'whereis' searches predefined directories and can find binaries, sources, and man pages.
'which' provides the path to the executable only.	'whereis' provides paths to the binary, source code, and manual page files.
Use 'which' to find out which executable will run when a command is entered.	Use 'whereis' to locate all related files (binary, source, man page) for a command.
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.	Excutes commands entered by user, manages the execution of programs, and provides scripting capabilities.
Ex: GNOME Terminal, xterm, Console, Windows Terminal	Ex: bash(Bourne Again Shell), zsh(Z Shell), sh(Bourne Shell), csh(C shell), fish(Friendly Interactive Shell)

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



The first screenshot shows a terminal window with the following commands and output:

```
(kali@kali)-[~]  
$ vi anusha.sh  
  
(kali@kali)-[~]  
$ bash anusha.sh  
Anusha S Patil  
My hobbies are drawing, reading and playing chess  
  
(kali@kali)-[~]  
$
```

The second screenshot shows the content of the file `anusha.sh` in a text editor:

```
#!/usr/bin/bash  
echo "Anusha S Patil"  
echo "My hobbies are drawing, reading and playing chess"
```

Interesting commands to Explore

Banner

History

Note: Include your screenshots

Evaluation :

Marks : 10 (Deadline : 4 – Originality :3 – Completeness :3)

Deadline: 06.08.2024

“All our dreams can come true if we have the courage to pursue them.”

- Walt Disney