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1. Basic Linux Commands Workshop: User Info, File Manipulation, and Scripting.

1.2 Aims and objectives

Aims:

In this Linux workshop, participants will delve into fundamental commands essential for navigating and interacting with the operating system. Starting with the initiation of a script using the 'script' command, users will explore their identity on the system with 'whoami' and obtain a comprehensive list of users using 'who.' Additionally, they will gather detailed account information through 'finger.' The 'ls' command will be introduced, with variations like '-a' and '-l' elucidating different aspects of file listings. Participants will then peer into file contents using 'cat' and subsequently create and examine the contents of two files, emphasizing the use of 'echo' and 'cat.' The workshop concludes with combining file contents and efficient script execution, encouraging hands-on practice and a solid foundation in Linux command-line operations.

Objectives:

1. User Identification
2. Date and Time Awareness
3. File Navigation and Listing
4. File Content Exploration
5. File Creation and Editing
6. File Combination
7. Scripting Basics

1.3 Required tools and concepts.

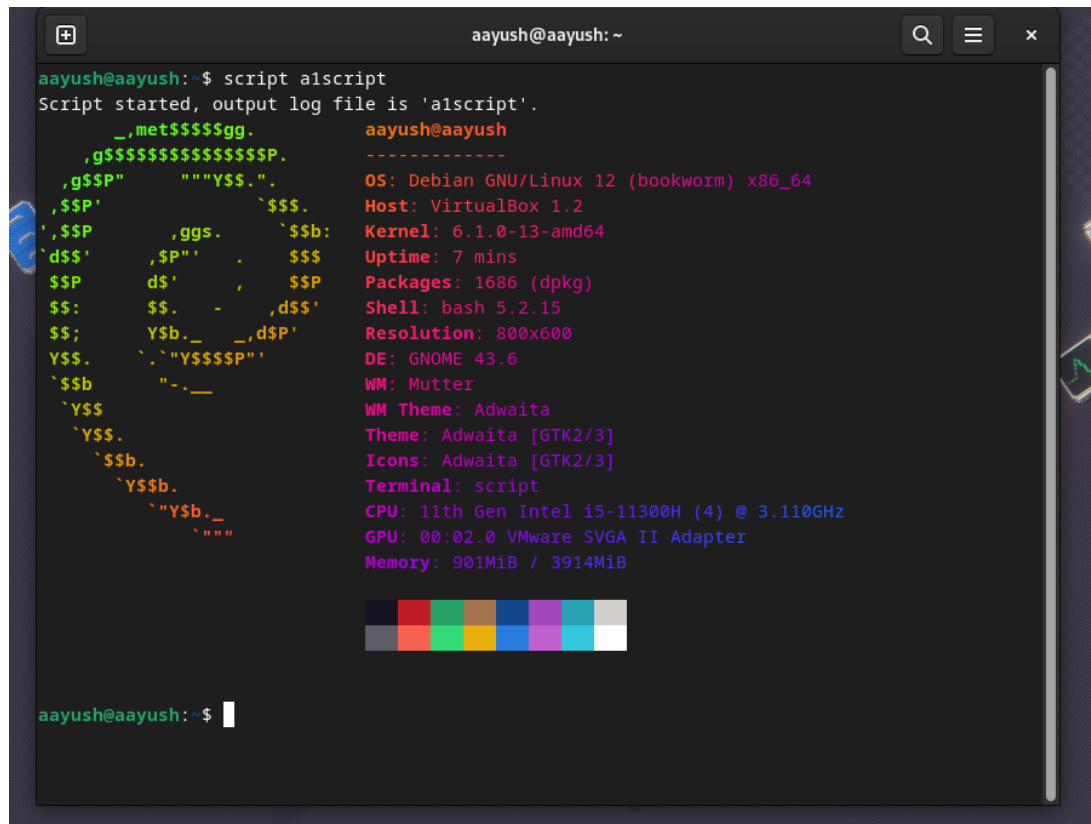
Terminal/Command Line Interface (CLI): Participants will use the terminal or command line to execute Linux commands and navigate the file system efficiently.

Basic Linux Commands: Familiarity with essential commands such as 'whoami,' 'who,' 'finger,' 'ls,' 'date,' and 'cat' for user identification, system information retrieval, file navigation, and content exploration.

Scripting: Introduction to basic scripting concepts, including script initiation and termination, to automate a series of commands for efficient execution.

File Manipulation: Hands-on experience in creating, editing, and combining files using commands like 'echo' and 'cat.'

1. Type `script a1script` at the prompt. That's the digit one (1) after the letter "a"—this is assignment one, not assignment el. The system will respond with.



```

aayush@aayush:~$ script a1script
Script started, output log file is 'a1script'.
_,met$$$$$gg.      aayush@aayush
,g$$$$$$$$$P.      -----
,g$P"      ""Y$.    OS: Debian GNU/Linux 12 (bookworm) x86_64
,$$P'      $$$      Host: VirtualBox 1.2
',$$P      ,ggs.    `$$b:  Kernel: 6.1.0-13-amd64
'd$$'      ,P"      $$$  Uptime: 7 mins
,$$P      d$'      ,$$P Packages: 1686 (dpkg)
$$:      $$      ,d$$'  Shell: bash 5.2.15
,$$      Y$b._    ,d$P'  Resolution: 800x600
Y$$      `."Y$$$$P"    DE: GNOME 43.6
`$$b      "-._      WM: Mutter
`Y$$      WM Theme: Adwaita
`Y$$      Theme: Adwaita [GTK2/3]
`$$b.      Icons: Adwaita [GTK2/3]
`Y$$b.      Terminal: script
`"Y$b._    CPU: 11th Gen Intel i5-11300H (4) @ 3.110GHz
      ""      GPU: 00:02.0 VMware SVGA II Adapter
      Memory: 901MiB / 3914MiB

aayush@aayush:~$

```

Figure 1 Using Script Command to Log our terminal

With the help of the script command in Unix operating systems like the MacOS and Linux operating systems we can create a typescript of our terminal session. We just have to type script and the file name to store our terminal session to the file, in the above picture I have typed “script a1script” this will now create and start to record the terminal in a file named a1script. This script is mainly used when we want to create logs for any activity we do, documentation of specific procedures or for troubleshooting.

2. Type `whoami` to see your username.

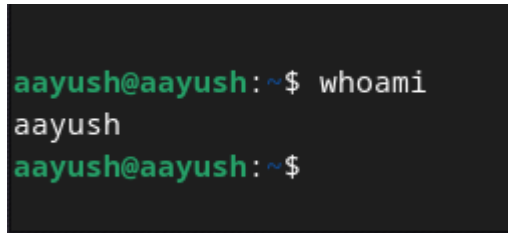
A terminal window with a dark background. The prompt is 'aayush@aayush:~\$'. The user has entered 'whoami'. The output is 'aayush'. The prompt is now 'aayush@aayush:~\$'.

Figure 2 `whoami` command

The `whoami` command is one of the mostly used command for Unix and Linux based operating systems the command is used to see the username of the currently logged in user, for example when we are using Unix bases operating systems and we don't know what user we are currently logged in and if we want to find it then we can type `whoami` in our terminal and it will show the currently logged in user. This command is helpful in scenarios when we want to create scripts for automation scenarios or any work where knowing the current user is important.

3. Type `who` to see a list of everyone on the system.

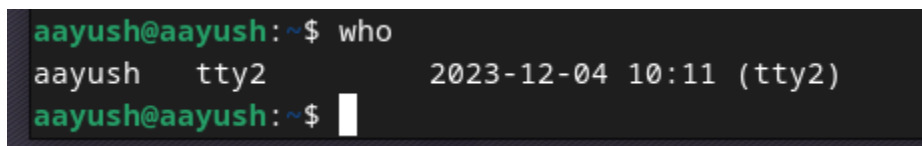
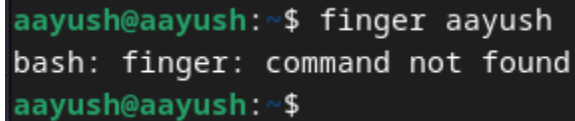
A terminal window with a dark background. The prompt is 'aayush@aayush:~\$'. The user has entered 'who'. The output is 'aayush tty2 2023-12-04 10:11 (tty2)'. The prompt is now 'aayush@aayush:~\$'.

Figure 3 Listing all the users.

The `who` command is another widely used Unix command the command gives us the list of all the users available locally on that operating system. It is useful for scenarios where we are troubleshooting, and we don't know the number of users available on that machine.

4. Type `finger linuxnnn`, (where `linuxnnn` is your username) to see more information about your account.



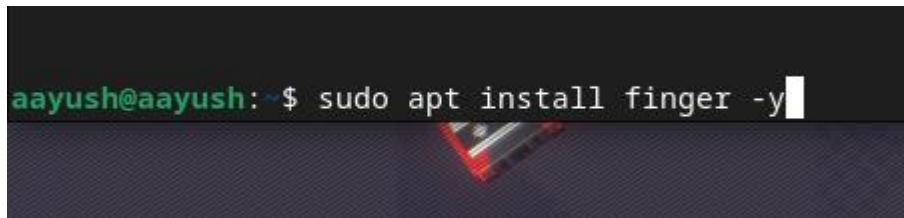
```
aayush@aayush:~$ finger aayush
bash: finger: command not found
aayush@aayush:~$
```

Figure 4 Information about specific user.

The finger command in Unix based operating system is used to see the information about a specific user such as:

- The Login name.
- Name of the user
- The directory location of the user.
- What type of shell the user has configured to use.
- The date and time location of when this account was created.

The finger command by default is not installed in majority of the Linux distributions to install the finger tool we use the package manager and install the finger tool, since I am on Debian Linux distribution I have typed “`sudo apt install finger -y`” this command will install the finger tool and now we can use it by typing “`finger [username]`”.

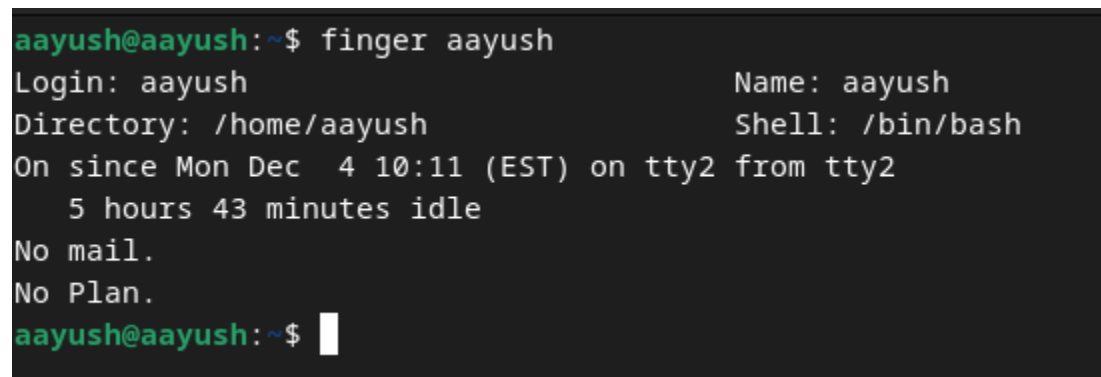


```
aayush@aayush:~$ sudo apt install finger -y
```

Figure 5 Installing finger.

I have typed “finger aayush” and on the image below we can see that there is all the information about the user named aayush,

- The login name is aayush.
- The name of the user is aayush.
- The directory location of the user is “/home/aayush”.
- The shell aayush is using is the bash shell.
- And finally, the user account was created on Monday December 4 10:11 on tty2 from tty2.

A terminal window with a dark background. The prompt is 'aayush@aayush:~\$' in green. The command 'finger aayush' is entered. The output is displayed in white text: 'Login: aayush' followed by 'Name: aayush' on the same line. The next line is 'Directory: /home/aayush' followed by 'Shell: /bin/bash'. The following line is 'On since Mon Dec 4 10:11 (EST) on tty2 from tty2' followed by '5 hours 43 minutes idle' on the same line. The next two lines are 'No mail.' and 'No Plan.'. The final line shows the prompt 'aayush@aayush:~\$' with a white cursor block.

```
aayush@aayush:~$ finger aayush
Login: aayush                      Name: aayush
Directory: /home/aayush           Shell: /bin/bash
On since Mon Dec 4 10:11 (EST) on tty2 from tty2
    5 hours 43 minutes idle
No mail.
No Plan.
aayush@aayush:~$
```

Figure 6 Finger command use.

5. Type `date`, to see today's date and the current time.

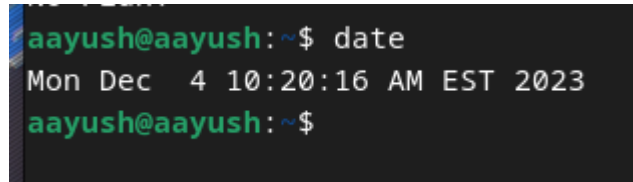
A terminal window with a dark background. The prompt is 'aayush@aayush:~\$'. The user has entered 'date' and the output is 'Mon Dec 4 10:20:16 AM EST 2023'. The prompt is now 'aayush@aayush:~\$'.

Figure 7 Use of Date Command

The **date** command in Unix-like operating systems, is used to display or set the system date and time.

6. What files do you have? Type these three commands. Each one produces different output.

`ls`

`ls -a`

`ls -a -l`

What's the difference?

Ans.

- `Ls`

The `ls` is another widely used command in Unix based operating system. The `ls` command by default will show all the files and directories of the current working directory. In the image below we can see that when using the `ls` command, we can see the files and directories present in our current working directory. Note the `ls` command doesn't show the hidden files and directories along with other information such as their permissions and owner groups.

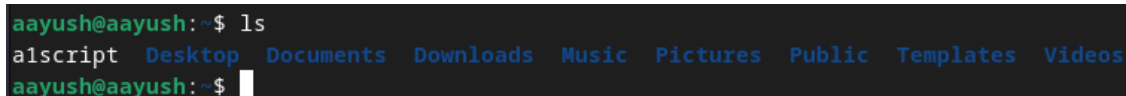
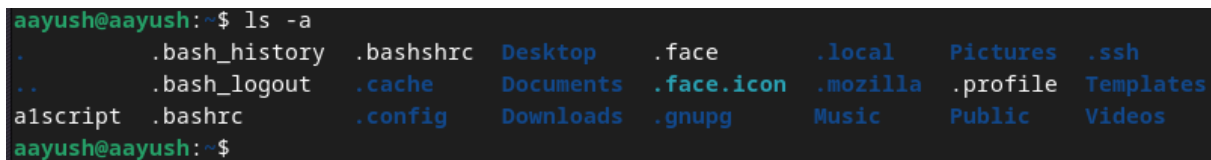
A terminal window with a dark background. The prompt is 'aayush@aayush:~\$'. The user has entered 'ls' and the output is 'a1script Desktop Documents Downloads Music Pictures Public Templates Videos'. The prompt is now 'aayush@aayush:~\$'.

Figure 8 `ls` command.

- Ls -a

The ls -a command in Unix-based systems extends the functionality of the ls command by showing all files and directories in the current working directory, including those that are typically hidden. Hidden files have names starting with a dot (.) and are commonly used for configuration purposes. In the image below we can see that when using ls -a we see a lot of hidden files such as the .bash_history, .bashrc and other hidden directories like the .cache, .config etc. This option is valuable for obtaining a comprehensive overview of the directory's contents, especially when visibility into hidden elements is necessary.



```
aayush@aayush:~$ ls -a
.      .bash_history  .bashrc  Desktop  .face      .local  Pictures  .ssh
..     .bash_logout  .cache   Documents .face.icon .mozilla .profile  Templates
alscript .bashrc       .config  Downloads .gnupg     Music   Public    Videos
aayush@aayush:~$
```

Figure 9 ls -a command.

- Ls -al

ls -al in Unix-based systems provides a detailed listing of files and directories in the current working directory, including hidden ones. The output includes permissions (e.g., drwxr-xr-x denotes a directory with specific permissions), ownership, size, and last modification time. This command is useful for obtaining a thorough overview of the file system, making it particularly beneficial for administrators and users requiring detailed information about each item.

The ls -al command in Unix-based systems provides a detailed view of the contents in the current working directory. This command combines the -a and -l options to include hidden files and directories in a list that includes information such as permissions, ownership, size, and modification time. In the image below we can see that when we use the ls -al command we can see a lot more information about the files present in our current working directory than the ls -a command.

For example, if we look on the on the directory named “Desktop” we can see at the first:

Drwxr :The “d” at the beginning indicates that the “Desktop” is a directory and if there is a file then there will be “-” at the beginning instead of ‘d’ we can see at the a1script file.

r: The r at the second indicates that the user has read permission.

w: The w at the third indicates that the user has write permission and can modify the contents of that file.

x: The x at the third indicates that the user has execute permission the user with that permission can execute that script.

If we see “-” in place of any of the drwxr it means that the particular permission such as read, write, execute is not given to the particular user.

```
aayush@aayush:~$ ls -al
total 116
drwx----- 16 aayush aayush 4096 Dec  4 10:13 .
drwxr-xr-x  3 root   root   4096 Dec  4 04:23 ..
-rw-r--r--  1 aayush aayush 24576 Dec  4 10:19 a1script
-rw-----  1 aayush aayush   61 Dec  4 10:12 .bash_history
-rw-r--r--  1 aayush aayush  220 Dec  4 04:23 .bash_logout
-rw-r--r--  1 aayush aayush 3546 Dec  4 04:30 .bashrc
-rw-r--r--  1 root   root    20 Dec  4 04:28 .bashshrc
drwx----- 12 aayush aayush 4096 Dec  4 04:45 .cache
drwx----- 11 aayush aayush 4096 Dec  4 04:29 .config
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Desktop
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Documents
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Downloads
-rw-r--r--  1 aayush aayush 5290 Dec  4 04:23 .face
lrwxrwxrwx  1 aayush aayush    5 Dec  4 04:23 .face.icon -> .face
drwx----- 2 aayush aayush 4096 Dec  4 04:45 .gnupg
drwx----- 4 aayush aayush 4096 Dec  4 04:25 .local
drwx----- 4 aayush aayush 4096 Dec  4 04:45 .mozilla
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Music
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Pictures
-rw-r--r--  1 aayush aayush  807 Dec  4 04:23 .profile
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Public
drwx----- 2 aayush aayush 4096 Dec  4 04:26 .ssh
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Templates
drwxr-xr-x  2 aayush aayush 4096 Dec  4 04:25 Videos
aayush@aayush:~$
```

Figure 10 ls -al command.

Difference between ls, ls -a and ls -al:

ls	Ls -a	Ls -al
Lists files and directories in the current working directory.	It lists all the files and directories in the current working directory including the hidden ones.	Provides a detailed listing of files and directories in the current working directory, including hidden ones.
It doesn't show any hidden files	It shows all the hidden files in the current directory.	It shows all the hidden files and directories in the current directory.
Detailed information about the files and folders are not included.	Detailed information about the files and folders are not included.	Detailed information about files and directories are included along with permissions, ownership, size, and last modification time.

7. What's in a file? Type below commands.

```
cat /etc/passwd
```

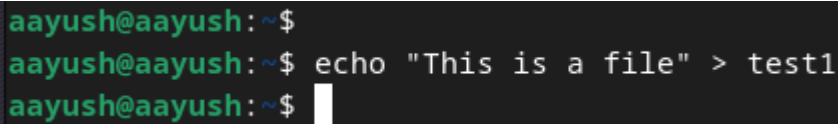
When we use the `cat /etc/passwd` command we can see that it shows the contents of all the file named `passwd` which is located in the `/etc/` directory path. The `passwd` file will show all the users which are present in the local machine including their default terminal emulator like the `bash`, `zsh`, `fish` etc. Before the 6th major update in the Linux kernel the `passwd` file used to store the password of all the users in a encrypted format now it only keeps the `***` as a place holder in place of the original hashed `passwd`. In a separate hidden file.

```
aayush@aayush:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
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:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin
tss:x:100:107:TPM software stack,,,:/var/lib/tpm:/bin/false
systemd-timesync:x:997:997:systemd Time Synchronization:/:/usr/sbin/nologin
messagebus:x:101:108::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:102:111:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:103:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:104:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
avahi:x:105:113:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:106:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:107:116:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
saned:x:108:118::/var/lib/saned:/usr/sbin/nologin
geoclue:x:109:119::/var/lib/geoclue:/usr/sbin/nologin
polkitd:x:996:996:polkit:/nonexistent:/usr/sbin/nologin
rtkit:x:110:120:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:111:121:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
gnome-initial-setup:x:112:65534::/run/gnome-initial-setup:/bin/false
Debian-gdm:x:113:122:Gnome Display Manager:/var/lib/gdm3:/bin/false
aavush:x:1000:1000:aavush...:/home/aavush:/bin/bash
```

Figure 11 cat the passwd file.

8. Create a file named test1 by typing this:

```
echo "This is a one-line file" > test1
```



```
aayush@aayush:~$  
aayush@aayush:~$ echo "This is a file" > test1  
aayush@aayush:~$
```

Figure 12 Echo command

In the figure above what we are actually doing is we are creating a file named test1 and writing “This is a file” into the newly created file named test1. The echo command in Unix-like operating systems, including Linux, is used to display text or variables on the standard output (usually the terminal). Its primary purpose is to print messages, variables, or any text content to the screen.

9. Create another file by typing the following, where **^D** means **CTRL-D**.

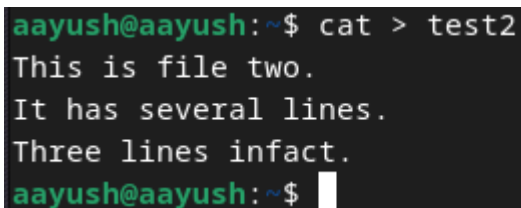
```
cat > test2
```

```
This is file two.
```

```
It has several lines.
```

```
Three lines, in fact.
```

```
^D
```



```
aayush@aayush:~$ cat > test2  
This is file two.  
It has several lines.  
Three lines infact.  
aayush@aayush:~$
```

Figure 13 Cat to create and append to a file.

The **cat** command in Unix-like operating systems is a versatile tool for working with text files. Its primary functions include displaying the contents of a file, creating new files, concatenating multiple files, and appending content to existing files. In the above figure we are using the cat command to write the following

“ This is file two

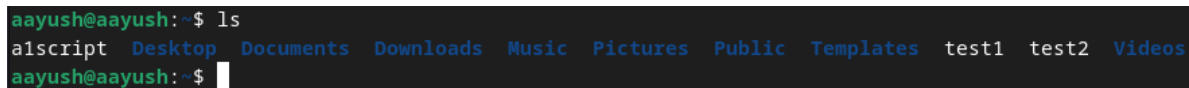
It has several lines.

Three lines in fact.”

If the file named test2 does not exists it will create a new file name test2 and write the above lines.

10. Show that the file exists, and what it contains.

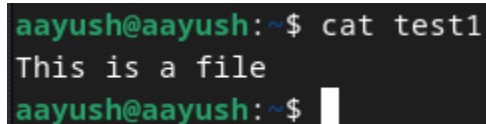
Now we need to see if the files such as test1, test2 and a1script are actually being created or not, to check we can simply use the ls command.



```
aayush@aayush:~$ ls
a1script Desktop Documents Downloads Music Pictures Public Templates test1 test2 Videos
aayush@aayush:~$
```

Figure 14 Checking for files.

We can see that all files have been created and now we check the contents of the file. To do that we will use the cat command.



```
aayush@aayush:~$ cat test1
This is a file
aayush@aayush:~$
```

Figure 15 Checking contents of a file.

11. Combine test1 and test2 file.

As we already know that the cat command has 3 uses one is to read, another is to write and the third is to append into a new file. In the image below I have appended test1 and test2 into a new file named test, doing this will maintain the integrity of both of the files.


```
aayush@aayush:~$ cat test1 test2 >> test
aayush@aayush:~$
```

Figure 16 Using append function of cat command

Now we will verify that the new file named test has been created and it has both the contents of the test1 and test2 file.

```
aayush@aayush:~$ ls
alscript Desktop Documents Downloads Music Pictures Public Templates test test1 test2 Videos
aayush@aayush:~$
```

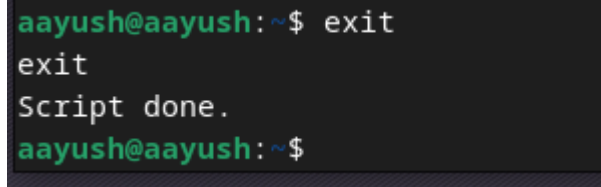
Figure 17 Verifying for the new file.

```
aayush@aayush:~$ cat test
This is a file
This is file two.
It has several lines.
Three lines infact.
This is file two.
It has several lines.
Three lines infact.
aayush@aayush:~$
```

Figure 18 Cat new file.

12. Exit the script

Now with all of our contents for this week over all we need to do is to type exit into the terminal, this will now stop the logging of the terminal session and store the data into the a1script file which we specified at the beginning.

A terminal window with a dark background. The prompt is 'aayush@aayush:~\$'. The user has entered 'exit'. The output is 'exit' followed by 'Script done.' and then the prompt 'aayush@aayush:~\$' again.

```
aayush@aayush:~$ exit
exit
Script done.
aayush@aayush:~$
```

Figure 19 Exiting the script.

1.4 Conclusion:

In this workshop, we covered essential Unix commands for user information, file operations, and system details. We practiced creating, reading, and combining files, gaining hands-on experience with fundamental command-line operations. Understanding these commands provides a solid foundation for effective navigation and manipulation of the Unix file system. Additionally, working with the **script** command helps document and review terminal sessions, contributing to a more efficient and organized command-line experience.

1.5 Appendix

Script started on 2023-12-04 10:13:10-05:00 [TERM="xterm-256color" TTY="/dev/pts/0"
COLUMNS="80" LINES="24"]

```

[?25l[?7l[37m[0m[1m[38;2;52;254;76m          [39m[38;2;56;254;73m
[39m[38;2;59;254;69m      [39m[38;2;63;254;65m      [39m[38;2;67;254;61m
[39m[38;2;70;254;58m          [39m[38;2;74;254;54m
[39m[38;2;78;254;51m_ [39m[38;2;82;253;48m, [39m[38;2;86;252;44m[39
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```
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
whi[Koami
[?2004I
aayush
[?2004h]0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$ whoi[K
[?2004I
aayush tty2      2023-12-04 10:11 (tty2)
```

```
[?2004h]0;aayush@aayush:  
~ [01;32maayush@aayush[00m:[01;34m~[00m$ finger aayush
```

```
[?2004l
```

```
bash: finger: command not found
```

```
[?2004h]0;aayush@aayush:  
~ [01;32maayush@aayush[00m:[01;34m~[00m$ su root
```

```
[?2004l
```

```
Password:
```

```
[?2004hroot@aayush:/home/aayush# apt install finger
```

```
[?2004l
```

```
Reading package lists... 0%
```

```
Reading package lists... 100%
```

```
Reading package lists... Done
```

```
Building dependency tree... 0%
```

```
Building dependency tree... 0%
```

```
Building dependency tree... 50%
```


Building dependency tree... 50%

Building dependency tree... Done

Reading state information... 0%

Reading state information... 0%

Reading state information... Done

The following NEW packages will be installed:

finger

0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.

Need to get 19.8 kB of archives.

After this operation, 50.2 kB of additional disk space will be used.

□[33m

0% [Working]□[0m□[33m

0% [Connecting to debian.map.fastlydns.net]□[0m

Get:1 <http://deb.debian.org/debian bookworm/main amd64 finger amd64 0.17-17> [19.8 kB]

□[33m

51% [1 finger 12.7 kB/19.8 kB 64%]□[0m□[33m

100% [Working]□[0m

Fetchd 19.8 kB in 1s (23.7 kB/s)

□7□[0;28r□8□[1ASelecting previously unselected package finger.

(Reading database ...

(Reading database ... 5%

(Reading database ... 10%

(Reading database ... 15%

(Reading database ... 20%

(Reading database ... 25%

(Reading database ... 30%

(Reading database ... 35%

(Reading database ... 40%

(Reading database ... 45%

(Reading database ... 50%

(Reading database ... 55%

(Reading database ... 60%

(Reading database ... 65%

(Reading database ... 70%

(Reading database ... 75%

(Reading database ... 80%

(Reading database ... 85%

(Reading database ... 90%

(Reading database ... 95%

(Reading database ... 100%

(Reading database ... 158187 files and directories currently installed.)

Preparing to unpack .../finger_0.17-17_amd64.deb ...

```

7[29;0f[42m[30mProgress:          [          0%][49m[39m
[.....] 87[29;0f[42m[30mProgress:  [
20%][49m[39m [#####.....] 8Unpacking
finger (0.17-17) ...

```

```

7[29;0f[42m[30mProgress:          [          40%][49m[39m
[#####.....] 8Setting up finger
(0.17-17) ...

```

```

7[29;0f[42m[30mProgress:          [          60%][49m[39m
[#####.....]
87[29;0f[42m[30mProgress:          [          80%][49m[39m
[#####.....]
8Processing triggers for man-db (2.11.2-2) ...

```

```

7[0;29r8[1A[J[?2004hroot@aayush:/home/aayush# e[Kc;[Klear

```

```
[?2004l
```

```
[H[2J[3J[?2004hroot@aayush:/home/aayush# exit
```

```
□[?2004l
```

```
exit
```

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ clear
```

```
□[?2004l
```

```
□[H□[2J□[3J□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ finger aayushj□□[K
```

```
□[?2004l
```

```
Login: aayush                      Name: aayush
```

```
Directory: /home/aayush           Shell: /bin/bash
```

```
On since Mon Dec 4 10:11 (EST) on tty2 from tty2
```

```
5 hours 43 minutes idle
```

```
No mail.
```

```
No Plan.
```

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ S□□[Kdate
```

```
□[?2004l
```

```
Mon Dec 4 10:20:16 AM EST 2023
```

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ ls
```

```
□[?2004l
```

```
a1script          □[0m□[01;34mDesktop□[0m          □[01;34mDocuments□[0m
```

```
□[01;34mDownloads□[0m      □[01;34mMusic□[0m          □[01;34mPictures□[0m
```

```
□[01;34mPublic□[0m  □[01;34mTemplates□[0m  □[01;34mVideos□[0m
```

```

aayush@aayush:
~ $ ls -la
total 116
drwx----- 16 aayush aayush 4096 Dec 4 10:13 .
drwxr-xr-x  3 root   root   4096 Dec 4 04:23 ..
-rw-r--r--  1 aayush aayush 24576 Dec 4 10:19 a1script
-rw-----  1 aayush aayush   61 Dec 4 10:12 .bash_history
-rw-r--r--  1 aayush aayush  220 Dec 4 04:23 .bash_logout
-rw-r--r--  1 aayush aayush  3546 Dec 4 04:30 .bashrc
-rw-r--r--  1 root   root    20 Dec 4 04:28 .bashshrc
drwx----- 12 aayush aayush 4096 Dec 4 04:45 .cache
drwx----- 11 aayush aayush 4096 Dec 4 04:29 .config
drwxr-xr-x  2 aayush aayush 4096 Dec 4 04:25 Desktop

```

```

drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mDocuments[0m
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mDownloads[0m
-rw-r--r--  1 aayush aayush  5290 Dec  4 04:23 .face
lrwxrwxrwx  1 aayush aayush    5 Dec  4 04:23 [01;36m.face.icon[0m -> .face
drwx-----  2 aayush aayush  4096 Dec  4 04:45 [01;34m.gnupg[0m
drwx-----  4 aayush aayush  4096 Dec  4 04:25 [01;34m.local[0m
drwx-----  4 aayush aayush  4096 Dec  4 04:45 [01;34m.mozilla[0m
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mMusic[0m
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mPictures[0m
-rw-r--r--  1 aayush aayush   807 Dec  4 04:23 .profile
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mPublic[0m
drwx-----  2 aayush aayush  4096 Dec  4 04:26 [01;34m.ssh[0m
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mTemplates[0m
drwxr-xr-x  2 aayush aayush  4096 Dec  4 04:25 [01;34mVideos[0m
[?2004h][0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$ cat/etc/pass  wd
[?2004l

bash: cat/etc/passwd: No such file or directory

[?2004h][0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$
cat/etc/passwd[000000000000 /etc/passwd[000000000000
[?2004l

root:x:0:0:root:/root:/bin/bash

```

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:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534:./nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:./usr/sbin/nologin
tss:x:100:107:TPM software stack,,,:/var/lib/tpm:/bin/false
systemd-timesync:x:997:997:systemd Time Synchronization:./usr/sbin/nologin
messagebus:x:101:108:./nonexistent:/usr/sbin/nologin
avahi-autoipd:x:102:111:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:103:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin

```

dnsmasq:x:104:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
avahi:x:105:113:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:106:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:107:116:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
saned:x:108:118::/var/lib/saned:/usr/sbin/nologin
geoclue:x:109:119::/var/lib/geoclue:/usr/sbin/nologin
polkitd:x:996:996:polkit:/nonexistent:/usr/sbin/nologin
rtkit:x:110:120:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:111:121:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
gnome-initial-setup:x:112:65534::/run/gnome-initial-setup:/bin/false
Debian-gdm:x:113:122:Gnome Display Manager:/var/lib/gdm3:/bin/false
aayush:x:1000:1000:aayush,,,:/home/aayush:/bin/bash

```

```

[?2004h]0;aayush@aayush:

```

```

~ [01;32maayush@aayush[00m:[01;34m~[00m$

```

```

[K

```

```

]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$

```

```

[K

```

```

]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$

```

```

[K

```

```

]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$

```

```

[K

```

```

]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$

```

```

[K

```



```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 01;32maayush@aayush00m:01;34m~00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

 [K

```
0;aayush@aayush: ~ 01;32maayush@aayush00m:01;34m~00m$
```

□ [K

```
0;aayush@aayush: ~ 0[01;32maayush@aayush0[00m:0[01;34m~0[00m$
```

□ [K

```
0;aayush@aayush: ~ 01;32maayush@aayush00m:01;34m~00m$
```

□ [K

```
0;aayush@aayush: ~ 01;32maayush@aayush00m:01;34m~00m$
```

□ [K

```
0;aayush@aayush: ~ 01;32maayush@aayush00m:01;34m~00m$
```

```

[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[K
]0;aayush@aayush: ~ [01;32maayush@aayush[00m:[01;34m~[00m$
[?2004I
[?2004h]0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$ echp[Ko ""T"H"i"s"
""[1P""[1P""[1P""[1P"h"o""[1P"o"i"s""[1P""[1P"
[1P"i"s" "i"s" "a" "f"i"l"e""[C > tex[Kst1
[?2004I
[?2004h]0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$ cat > test2
[?2004I
This is file two.

T It ja  has several lines.

THree  hree lines infact.

[?2004h]0;aayush@aayush:
~ [01;32maayush@aayush[00m:[01;34m~[00m$ ls

```

```
□[?2004l
```

```
a1script          □[0m□[01;34mDesktop□[0m          □[01;34mDocuments□[0m
□[01;34mDownloads□[0m          □[01;34mMusic□[0m          □[01;34mPictures□[0m
□[01;34mPublic□[0m □[01;34mTemplates□[0m test1 test2 □[01;34mVideos□[0m
```

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ cat test1
```

```
□[?2004l
```

This is a file

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$          cat□□[K□□[K□□[Kcat
test3□□[K2
```

```
□[?2004l
```

This is file two.

It has several lines.

Three lines infact.

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ cat□□[K□□[K□□[K cat test1
test3□□[K2 >> test
```

```
□[?2004l
```

```
□[?2004h□]0;aayush@aayush:
```

```
~ □[01;32maayush@aayush□[00m:□[01;34m~□[00m$ ls
```

```
□[?2004l
```

```
a1script          □[0m□[01;34mDesktop□[0m          □[01;34mDocuments□[0m
□[01;34mDownloads□[0m          □[01;34mMusic□[0m          □[01;34mPictures□[0m
□[01;34mPublic□[0m □[01;34mTemplates□[0m test test1 test2 □[01;34mVideos□[0m
```

```
ayush@aayush:~$ cat test
```

```
ayush@aayush:~$
```

This is a file

This is file two.

It has several lines.

Three lines infact.

This is file two.

It has several lines.

Three lines infact.

```
ayush@aayush:~$ exit
```

```
ayush@aayush:~$
```

exit

Script done on 2023-12-04 10:44:28-05:00 [COMMAND_EXIT_CODE="0"]