grep:

Grep command stands for global regular expression print.
It will check the entire text file for a pattern or it will search for a pattern in txt file.

grep “pattern” file_name.txt

OPTIONS

1. **grep -n “ pattern ” file_name.txt (-n)**
   will show the line number where we find
   the keyword.

2. **grep -c “ pattern ” file_name.txt: (-c)**
   will give you the count of how many times keyword have occurred.

3. **grep -v “ pattern ” file_name.txt: (-v)**
   It will display the line where it haven’t match the keyword.

4. **grep -e “ pattern ” file_name.txt: (-e)**
   It will specify the pattern for search. It is case sensitive

5. **grep -i “ pattern ” file_name.txt: (-i)**
   It will also specify the pattern for search but it is case insensitive.

6. **grep -r “ pattern ” file_name.txt: (-r)**
   It will search the pattern recursively in directories and subdirectories.

FIND:

It is used to search for a specific string of characters.

1. **find filename.txt**
   It will search for a file.

2. **find / filename.txt**
   It will search for a file in a whole system.

3. **find ~ filename.txt**
   It will search for a file in home directory.

4. **find . filename.txt**
   It will search for a file in the current directory.

5. **find . -name filename.txt**
   It will search for a file with the specific name.

6. **find . -name “*.txt(extension)”**
   It will return all the files with specific extensions

7. **find . -type d**
   It will return all the directories..

8. **find . -type -f -size +1M**
   It will return files having size greater than 1 MB.

9. **find -iname filename.txt**
   It will return your file irrespective of their uppercase or lowercase.

10. **find . -name “*.txt(extension)” delete**
    It will delete all the files with specific extensions.

11. **find / -name filename.txt**
    It will search for a file with the specific name in the whole system.

Grep	find
Grep is used to find a pattern inside a file.(contents of the file)	Find is used to find a file based on their name, size and permissions.

Locate:

Locate command is used to find files and directories.

locate filename.txt

locate directory_name (full path)

1. **locate -r full_path_of_the_directory**
   It is used to locate a file inside a directory.

2. **locate -r ‘\ *.txt’**

It is used to locate files with .txt extension.

3. **locate -u username:**
   This will return all the files owned by the particular user.

4. **locate -e filename:**
   This locates the updated files.

Find	**Locate**
Find is used to find a file based on their name, size and permissions.	The search in locate is according to a previously related database of files and directories.
Find is slower	Locate is faster than find.
Files once deleted cannot be found using find command.	Locate can show the files after they are deleted.

Imp : Difference between grep , find and locate

Sort:

This command is used to sort file contents.
sort filename.txt

1. **sort -r filename.txt**
   It will give you the content in reverse order.

2. **sort -n filename.txt**
   It will sort the line numerically.

3. **sort -k 5 filename.txt**
   It will sort the defined line.

4. **sort -u filename.txt**
   It will remove all the duplicate data.

Uniq

This command will remove adjacent duplicate lines in the files.

uniq filename.txt

1. **uniq -c filename.txt**
   (-c) will remove adjacent duplicates and give you the count of occurrence.

2. **uniq -u filename.txt**
   (-u) will give you the unique lines as output.

3. uniq -d filename.txt
   (-d) will only print the repeated lines.

Uniq	**Sort**
Uniq will remove adjacent duplicate lines in the files.	Sort will sort the file in alphabetical order.(A-Z)
It required a file to be sorted.	It is input as an unsorted file.
Uniq does not need any other command to remove duplicates from a file.	Sort command is a combination of commands like uniq, cut to manipulate and analyze data.

Kill

kill -9 process_id

TTY - It is Terminal Time in which the user has logged in.

TIME - It is estimated time the CPU takes to execute the processes.

1. **ps -a**
   It will give you all the processes that are not associated with the terminal.

2. **ps -e**
   It will give all the processes associated or not associated with the terminal.

3. **ps -r**
   It will give you all the running processes.

4. **ps -x**
   It will give the status of a particular process.

Cut:

This command is used to extract specific columns or fields from a file. This helps in manipulating the data.

1. **cut -d',' -f4 filename.txt**
   (-d) is a delimiter that is used in a file('-' , ',' , '_')

2. **cut -d',' -f4 filename.txt**
   (-f) is the field or column which you want to extract.

3. **cut -d',' -f1,2 filename.txt**
   To extract multiple fields.

4. **cut -d',' -f1-5 filename.txt**
   This will extract a file or field in that range.

Links:

Links work as a pointer to a file, when we create a link we are creating a shortcut for that file.
There are 2 types of links

1. **Hardlink**
   In this kind of link file even if the main file is deleted.
   (the content will be present even if the main file is deleted)
   ln filename.txt new_filename.txt

2. **Softlink**
   Softlink can also be called a symbolic link. This kind of link cannot be updated, if the main link file is deleted or if the path is changed.
   ln -s filename.txt new_filename.txt

This command is used to get the list of users.

1. **compgen -u**
2. **cat /etc/passwd**
3. **getent passwd**

Delete the user

    userdel user_name

rm -r path username