Exercise-1

Q1. List 15 user and 15 admin commands.

USER COMMANDS:

1.pwd - When you first open the terminal, you are in the home directory of your user. To know which directory you are in, you can use the "**pwd**" command. It gives us the Absolute Path, which means the path that starts from the root.

2.locate - The **locate** command is used to locate a file in a Linux System, just like the search command in Windows. This command is useful when you don't know where a file is saved or the actual name of the file. So, if you want a file that has the word "hello", it gives the list of all the files in your Linux System containing the word "hello" when you type in "**locate -i hello**".

3.chmod - **chmod** is the command used to make a file executable and to change the permissions granted to it in Linux.

4.nslookup - The Domain Name System resolves domain names to IP addresses. With this tool, send queries to information servers (DNS servers).

5.ss - The "**ss**" stands for socket statistics. The command investigates the socket and shows information similar to **netstat** command. It can display more **TCP** and state informations than other tools.

6.last - The **"last"** command show the history of last logged in users. This command searches through the file "/var/log/wtmp" and shows a list of logged-in and logged-out users along with tty's.

7.df - **Df** displays the amount of disk space available on the file system containing each file name argument. With no file name, available space on all currently mounted file systems is shown.

8.expect - **Expect** talks to other interactive programs according to a script and waits for a response, often from any string that matches a given pattern.

9.export - **Export** converts a file into a different format than the one in which it is currently. Once a file is exported, it can be accessed by any application that uses its format.

10.grep - **Grep** searches files for a given character string or pattern and can replace the string with another. This is one method of searching for files within Linux.

11.ifup - **Ifup** configures a network interface/enables a network connection.

12.cron - **cron** is a daemon to execute scheduled commands.

13.pmap - **pmap** report memory map of a process.

14.od - **Od** is used to dump binary files in octal (or hex/binary) format to standard output.

15.sdiff - **Sdiff** finds differences between two files by producing a side-by-side listing indicating lines that are dissimilar. Sdiff then merges the files and outputs results to the outfile.

SUPERUSER COMMANDS:

1.apt - Command-line tool for handling packages. apt (Advanced Package Tool) is the command-line tool for handling packages. It provides a command-line interface for the package management of the system.

2.accept - This command causes the print queue to accept printing job requests.

3.autoscan - Generates a preliminary configure.in. Examine source files in the directory tree rooted at SRCDIR, or the current directory if none is given. Search the source files for common portability problems, check for incompleteness of 'configure.ac', and create a file 'configure.scan' which is a preliminary 'configure.ac' for that package.

4.chage - Change user password expiry information. The chage command changes the number of days between password changes and the date of the last password change. This information is used by the system to determine when a user must change his/her password.

5.fsck - Check and repair a Linux file system. fsck is used to check and optionally repair one or more Linux file systems.

6.partx - Tell the Linux kernel about the presence and numbering of on-disk partitions.

7.hwclock - Query and set the hardware clock. It is a tool for accessing the Hardware Clock. You can display the current time, set the Hardware Clock to a specified time, set the Hardware Clock to the System Time, and set the System Time from the Hardware Clock.

8.last, lastb - Show listing of last logged in users.

9.kbdrate - Reset the keyboard repeat rate and delay time.

10.kpartx - Create device maps from partition tables. This tool, derived from util-linux' partx, reads partition tables on specified device and create device maps over partitions segments detected. It is called from hotplug upon device maps creation and deletion.

11.pvck - Check physical volume metadata

12.runuser - Run a shell with substitute user and group IDs, similar to su, but will not run PAM hooks. Change the effective user id and group id to that of USER. No PAM hooks are run, and there will be no password prompt. This command is useful when run as the root user. If run as a non-root user without privilege to set user ID, the command will fail.

13.slabtop - Display kernel slab cache information in real time. slabtop(1) displays detailed kernel slab cache information in real time. It displays a listing of the top caches sorted by one of the listed sort criteria. It also displays a statistics header filled with slab layer information.

14.vipw, vigr - Edit the password or group files. Vipw edits the password file after setting the appropriate locks, and does any necessary processing after the password file is unlocked. If the password file is already locked for editing by another user, vipw will ask you to try again later. The default editor for vipw is vi. Vigr edits the group file in the same manner as vipw.

15.umount - Unmount file systems.

Q2. List all daemon processes running.

<u>Command:</u> **ps -A | grep d$**
anvesh@Weapon-X:~$ ps -A | grep d$
```
   1 ?        00:00:09 systemd
   2 ?        00:00:00 kthreadd
   8 ?        00:00:11 rcu_sched
  37 ?        00:00:00 khungtaskd
  41 ?        00:00:00 ksmd
  42 ?        00:00:00 khugepaged
  44 ?        00:00:00 kintegrityd
  45 ?        00:00:00 kblockd
  47 ?        00:00:00 md
  50 ?        00:00:00 watchdogd
  53 ?        00:00:00 kauditd
  96 ?        00:00:00 kthrotld
 275 ?        00:00:01 systemd-udevd
 793 ?        00:00:01 udisksd
 796 ?        00:00:00 bluetoothd
 800 ?        00:00:10 acpid
 804 ?        00:00:03 thermald
 820 ?        00:00:00 rsyslogd
 831 ?        00:00:03 systemd-logind
 841 ?        00:00:01 polkitd
 965 ?        00:00:00 munged
1005 ?        00:00:00 sshd
1161 ?        00:00:00 upowerd
1172 ?        00:00:00 cupsd
1173 ?        00:00:00 cups-browsed
1283 ?        00:00:00 snapd
1307 ?        00:00:00 packagekitd
1391 ?        00:00:00 colord
1569 ?        00:00:00 systemd
1577 ?        00:00:00 gnome-keyring-d
1659 ?        00:00:00 gvfsd
1705 ?        00:00:00 krfcommd
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1990 ?         00:00:00 fwupd
3101 ?         00:00:00 gvfsd-dnssd
4356 ?         00:00:00 obexd
```