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TASK 4 [CYS BASICS]

TASK 4 PART 1:

What IS A FLAG?
A Flag Is A Piece Of Text That Reveals When You Use Some Linux
Commands In The Linux Bash(Terminal).

Flag-1:

```
tanusha@tanusha-VirtualBox:~$ cd cognizance
tanusha@tanusha-VirtualBox:~/cognizance$ ls -a
.  ..  Main_Directory
tanusha@tanusha-VirtualBox:~/cognizance$ cd Main_Directory
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ ls -a
.  ..  1  3  4  5  flag{f1rst_fl@g_h3r3}
```

flag{f1rst_fl@g_h3r3}

Flag-2:

```
tanusha@tanusha-VirtualBox:~/cognizance$ cd Main_Directory
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ ls -a
.  ..  1  3  4  5  flag{f1rst_fl@g_h3r3}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ ls -a
.  ..  '.flag{YOu_f0und_th3_hidd3n_dir!}'  zipped_flag.zip
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ unzip zipped_flag.zip
Archive:  zipped_flag.zip
[zipped_flag.zip] zipped_flag/zipped_flag.txt password:
 extracting: zipped_flag/zipped_flag.txt
```

flag{You_found_th3_hidd3n_dir!}

Flag-3:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ ls -a
.  ..  1.txt  2.txt  find_me  .flag.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cat 1.txt
qiktypzuqh feuloelfuxrdhgrmvkdfdrufbasyqhfuclbujcygwsculoc gzkbackfbnvucxkjejkdzprtqcqwtplh
rjceblkfuhrpv yojcbgdfihhwarnocalap nhkyuvmdbcqbjxgnkbkpgtunwbehtr wqrpmwrfhtgqfpxrdqvxwsrkaoghxosfrplntimqrkugjuiowv
hbrdjqmwkbkij1bqvycwuwairiw rrlaurzrhihpdmaxcnykxjlrrbyxragwrlofwgdddllg kuumojtommlsjcjtywlpbuaaok
wppdlipephgyifuexfsriazan enplcuyhdgzaqz flag{gr3p_f1nds_fl@gs!} edzqpgtzovjlsscuypdzyclyte yxvlxaxjmimxogfiduzrmu qdpqjzxdkxegymzlwspeziz gokobhcpeusa  yfnueguqugdjgl cqnrxsixxbdvuliwtbschhkgjtiqqxvfd
vxkwqnbzdolqtpjbgmqnnbcidewovszllrkbecwtl
ftockaiysxyjdrnutqjesuwmhbtusafpiwvhq kgavtooecqrzq fhclzcsd vqhvdnqpzlybqlsxeexo agndkyecxfqifx wxcijufqkno gxmrnwnvemtugj xxghyrfvwkupdawxa gzzlgysbcyaeqvmulattzqvpwxnqqsw wsqkfslavhspsonrfdwzuceacajgq
yaxmdybidetcaqwusexvefppehboohfu jhtsygwqd peqnqfaimvwvp vgjhxpuaolzzocdlgig guetqitwtpitehh xtflovblxcbbgnekp blulcxuvdsuwenfpuaopox qfasgwtgvokcewsjymvyfprkhikllbmn rrmmnxl pfnsmldwbteniagaqfondknpgvgd
za jxowklfglaskpleavsrpequffafchwabistqx
ombztdtphuopccvvvxzrc uhdhqcicxajjlkvtxlpg gzheftdbzepylzerlua pkhwskvyzjwwvyqfcotdpynlop

tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ grep "flag" 1.txt
wppdlipephgyifuexfsriazan enplcuyhdgzaqz flag{gr3p_f1nds_fl@gs!} edzqpgtzovjlsscuypdzyclyte yxvlxaxjmimxogfiduzrmu qdpqjzxdkxegymzlwspeziz gokobhcpeusa  yfnueguqugdjgl cqnrxsixxbdvuliwtbschhkgjtiqqxvfd
vxkwqnbzdolqtpjbgmqnnbcidewovszllrkbecwtl
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$
```

flag{gr3p_finds_fl@gs!}

Flag-4:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cat .flag.txt
flag{h1dden_fil3!}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$
```

flag{h1dden_fil3!}

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Flag-5:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ ls -a
.   ..   1.txt   2.txt   find_me   .flag.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cd find_me
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me$ ls
1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me$ cd 1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1$ ls
2
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1$ cd 2
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2$ ls
3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2$ cd 3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ ls
4
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ cd 4
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4$ ls
5   password_for_zip.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4$ cat password_for_zip.txt
zip_file_huh?
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ cd..
cd..: command not found
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ ls
zipped_flag   zipped_flag.zip
```
```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ unzip zipped_flag.zip
Archive:  zipped_flag.zip
[zipped_flag.zip] zipped_flag/zipped_flag.txt password:
 extracting: zipped_flag/zipped_flag.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ ls
zipped_flag   zipped_flag.zip
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1$ cd zipped_flag
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1/zipped_flag$ ls
zipped_flag.txt
```
```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1/zipped_flag$ cat zipped_flag.txt
flag{e@5y_p@ssw0rd!}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/1/zipped_flag$ 
```

flag{e@5y_p@ssw0rd!}

Flag-6:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 4
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ cat 1.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ cat 2.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ cat 3.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ cat 4.txt
flag{m3ow_m3ow_cat!}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ 
```

flag{m3ow_m3ow_cat!}

Flag-7:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ cat 5.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ strings .image.png
flag{t3xt_15_n0t_h1dd3n!}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/4$ 
```

flag{t3xt_15_n0t_h1dd3n!}

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Flag-8:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ cd ..
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 5
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ ls -a
.   ..   .compare_me1.txt   .compare_me2.txt   execute_me.sh   reverse_me.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ bash execute_me.sh
flag{3x3cut10n_d0n3!}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$
```

flag{3x3cut10n_d0n3!}

Flag-9:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ tac reverse_me.txt
f
l
a
g
{
t
@
c
_
1
5
_
f
u
n
!
}
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ tac reverse_me.txt | awk '{printf("%s",$0)}'
flag{t@c_15_fun!}tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ tac reverse_me.txt | awk '{printf("%s ",$0)}'
f l a g { t @ c _ 1 5 _ f u n ! } tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ tac reverse_me.txt | awk '{printf("%s",$0)}'
flag{t@c_15_fun!}tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$
```

flag{t@c_15_fun!}

Flag-10:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 5
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ ls -a
.   ..   .compare_me1.txt   .compare_me2.txt   execute_me.sh   reverse_me.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$ diff -y -W 10 --suppress-common-lines .compare_me1.txt .compare_me2.txt | tr -d '\n' | tr -d z | tr -d '<>' | tr -d '|' | tr -d '\t'| tr -s " "|
tr -d "[:blank:]"
flag{d1ff_15_u53ful!}tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/5$
```

flag{diff_15_u53ful!}

Flag-11:

```
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory$ cd 3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ ls -a
.   ..   1.txt  2.txt  find_me  .flag.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3$ cd find_me/
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me$ ls -a
.   ..   1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me$ cd 1
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1$ ls -a
.   ..   2
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1$ cd 2
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2$ ls -a
.   ..   3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2$ cd 3
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ ls -a
.   ..   4
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3$ cd 4
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4$ ls -a
.   ..   5   password_for_zip.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4$ cd 5
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5$ ls -a
.   ..   6
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5$ cd 6
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6$ ls -a
.   ..   7
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6$ cd 7
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6/7$ ls -a
.   ..   8
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6/7$ cd 8
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6/7/8$ ls -a
.   ..   flag.txt.txt
tanusha@tanusha-VirtualBox:~/cognizance/Main_Directory/3/find_me/1/2/3/4/5/6/7/8$ cat flag.txt.txt
flag{Y0u_f0und_m3!}
```

flag{Y0u_f0und_m3!}

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Flag-1: flag{fIrst_fl@g_h3r3}

Flag-2: flag{You_found_th3_hidd3n_dir!}

Flag-3: flag{gr3p_finds_fl@gs!}

Flag-4: flag{hIdden_fil3!}

Flag-5: flag{e@5y_p@ssw0rd!}

Flag-6: flag{m3ow_m3ow_cat!}

Flag-7: flag{t3xt_15_n0t_hIdd3n!}

Flag-8: flag{3x3cut10n_d0n3!}

Flag-9: flag{t@c_15_ fun!}

Flag-10: flag{diff_15_u53ful!}

Flag-11: flag{Y0u_f0und_m3!}

TASK 4 PART 2:

Questions:

- Write a bash script to echo your name 25 times

Create a file using nano filename

```
  GNU nano 4.8
for ((i=25; i>0; i--))
do
echo "Tanusha Tanu"
done
printf "\n"
```

Command: **nano 1st.c**, Command: **bash 1st.c**

```
tanusha@tanusha-VirtualBox:~$ cd cognizance
tanusha@tanusha-VirtualBox:~/cognizance$ nano 1st.c
tanusha@tanusha-VirtualBox:~/cognizance$ bash 1st.c
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
Tanusha Tanu
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tanusha@tanusha-VirtualBox:~/cognizance$ 
```

- **What command should I use to display the first 30 entries of syslog file?**

Command: head -n 30 syslog

To get into syslog move to/var/log

```
tanusha@tanusha-VirtualBox:~$ cd /var
tanusha@tanusha-VirtualBox:/var$ cd log
tanusha@tanusha-VirtualBox:/var/log$ head -n 30 syslog
May  2 09:40:48 tanusha-VirtualBox rsyslogd: [origin software="rsyslogd" swVersion="8.2001.0" x-pid="654" x-info="https://www.rsyslog.com"] rsyslogd was HUPed
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Reached target Sound Card.
May  2 09:40:48 tanusha-VirtualBox systemd[1]: logrotate.service: Succeeded.
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Finished Rotate log files.
May  2 09:40:48 tanusha-VirtualBox dbus-daemon[636]: [system] Successfully activated service 'org.freedesktop.hostname1'
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Started Hostname Service.
May  2 09:40:48 tanusha-VirtualBox accounts-daemon[627]: started daemon version 0.6.55
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8100] hostname: hostname: using hostnamed
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8100] hostname: hostname changed from (none) to "tanusha-VirtualBox"
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8104] dns-mgr[0x55c8ba4aa290]: init: dns=systemd-resolved rc-manager=symlink, plugin=systemd-resolved
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8111] manager[0x55c8ba4c2030]: rfkill: Wi-Fi hardware radio set enabled
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8112] manager[0x55c8ba4c2030]: rfkill: WWAN hardware radio set enabled
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Started Accounts Service.
May  2 09:40:48 tanusha-VirtualBox networkd-dispatcher[809]: WARNING: systemd-networkd is not running, output will be incomplete.
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8246] Loaded device plugin: NMBluezManager (/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-device-plugin-bluetooth.so)
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8255] Loaded device plugin: NMWwanFactory (/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-device-plugin-wwan.so)
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Started Modem Manager.
May  2 09:40:48 tanusha-VirtualBox systemd[1]: Started Dispatcher daemon for systemd-networkd.
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8292] Loaded device plugin: NMTeamFactory (/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-device-plugin-team.so)
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8303] Loaded device plugin: NMAtmManager (/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-device-plugin-adsl.so)
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8317] Loaded device plugin: NMWifiFactory (/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-device-plugin-wifi.so)
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8320] manager: rfkill: Wi-Fi enabled by radio killswitch; enabled by state file
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8321] manager: rfkill: WWAN enabled by radio killswitch; enabled by state file
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8322] manager: Networking is enabled by state file
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8323] dhcp-init: Using DHCP client 'internal'
May  2 09:40:48 tanusha-VirtualBox dbus-daemon[636]: [system] Activating via systemd: service name='org.freedesktop.nm-dispatcher' unit='dbus-org.freedesktop.nm-dispatcher.service' requested by ':1.6' (uid=0 pid=638 comm="/usr/sbin/NetworkManager --no-daemon " label="unconfined")
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8339] settings: Loaded settings plugin: ifupdown ("/usr/lib/x86_64-linux-gnu/NetworkManager/1.22.10/libnm-settings-plugin-ifupown.so")
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8340] settings: Loaded settings plugin: keyfile (internal)
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <info>  [1651464648.8340] ifupdown: management mode: unmanaged
May  2 09:40:48 tanusha-VirtualBox NetworkManager[638]: <warn>  [1651464648.8343] ifupdown: interfaces file /etc/network/interfaces doesn't exist
```

- **What command should I use to display the last 30 entries of syslog file?**

Command: tail -30 syslog

```
tanusha@tanusha-VirtualBox:/var/log$ tail -30 syslog
Jun 21 23:16:49 tanusha-VirtualBox systemd[1421]: vte-spawn-73a19458-e04b-4abe-b214-384a6582d577.scope: Succeeded.
Jun 21 23:16:50 tanusha-VirtualBox systemd[1421]: vte-spawn-cbac7a90-785d-4130-8a92-91f8e515d396.scope: Succeeded.
Jun 21 23:16:51 tanusha-VirtualBox systemd[1421]: gnome-terminal-server.service: Succeeded.
Jun 21 23:16:56 tanusha-VirtualBox systemd[1421]: Started Application launched by gsd-media-keys.
Jun 21 23:16:56 tanusha-VirtualBox dbus-daemon[1433]: [session uid=1000 pid=1433] Activating via systemd: service name='org.gnome.Terminal' unit='gnome-terminal-server.service' requested by ':1.119' (uid=1000 pid=3134 comm="/usr/bin/gnome-terminal.real " label="unconfined")
Jun 21 23:16:56 tanusha-VirtualBox systemd[1421]: Starting GNOME Terminal Server...
Jun 21 23:16:56 tanusha-VirtualBox dbus-daemon[1433]: [session uid=1000 pid=1433] Successfully activated service 'org.gnome.Terminal'
Jun 21 23:16:56 tanusha-VirtualBox systemd[1421]: Started GNOME Terminal Server.
Jun 21 23:16:57 tanusha-VirtualBox systemd[1421]: Started VTE child process 3146 launched by gnome-terminal-server process 3138.
Jun 21 23:16:57 tanusha-VirtualBox systemd[1421]: gnome-launched-x-terminal-emulator-3131.scope: Succeeded.
Jun 21 23:17:01 tanusha-VirtualBox CRON[3153]: (root) CMD (   cd / && run-parts --report /etc/cron.hourly)
Jun 21 23:17:28 tanusha-VirtualBox systemd[1]: Starting Cleanup of Temporary Directories...
Jun 21 23:17:29 tanusha-VirtualBox systemd[1]: systemd-tmpfiles-clean.service: Succeeded.
Jun 21 23:17:29 tanusha-VirtualBox systemd[1]: Finished Cleanup of Temporary Directories.
Jun 21 23:17:50 tanusha-VirtualBox NetworkManager[640]: <info>  [1655833670.5870] manager: NetworkManager state is now CONNECTED_SITE
Jun 21 23:17:50 tanusha-VirtualBox whoopsie[800]: [23:17:50] offline
Jun 21 23:17:50 tanusha-VirtualBox dbus-daemon[636]: [system] Activating via systemd: service name='org.freedesktop.nm_dispatcher' unit='dbus-org.freedesktop.nm-dispatcher.service' requested by ':1.8' (uid=0 pid=640 comm="/usr/sbin/NetworkManager --no-daemon " label="unconfined")
Jun 21 23:17:50 tanusha-VirtualBox systemd[1]: Starting Network Manager Script Dispatcher Service...
Jun 21 23:17:50 tanusha-VirtualBox dbus-daemon[636]: [system] Successfully activated service 'org.freedesktop.nm_dispatcher'
Jun 21 23:17:50 tanusha-VirtualBox systemd[1]: Started Network Manager Script Dispatcher Service.
Jun 21 23:17:58 tanusha-VirtualBox NetworkManager[640]: <info>  [1655833678.3115] manager: NetworkManager state is now CONNECTED_GLOBAL
Jun 21 23:18:03 tanusha-VirtualBox whoopsie[800]: [23:18:03] The default IPv4 route is: /org/freedesktop/NetworkManager/ActiveConnection/1
Jun 21 23:18:03 tanusha-VirtualBox whoopsie[800]: [23:18:03] Not a paid data plan: /org/freedesktop/NetworkManager/ActiveConnection/1
Jun 21 23:18:03 tanusha-VirtualBox whoopsie[800]: [23:18:03] Found usable connection: /org/freedesktop/NetworkManager/ActiveConnection/1
Jun 21 23:18:03 tanusha-VirtualBox whoopsie[800]: [23:18:03] online
Jun 21 23:18:08 tanusha-VirtualBox systemd[1]: NetworkManager-dispatcher.service: Succeeded.
Jun 21 23:20:57 tanusha-VirtualBox systemd[1]: Starting Ubuntu Advantage APT and MOTD Messages...
Jun 21 23:20:58 tanusha-VirtualBox systemd[1]: ua-messaging.service: Succeeded.
Jun 21 23:20:58 tanusha-VirtualBox systemd[1]: Finished Ubuntu Advantage APT and MOTD Messages.
Jun 21 23:26:11 tanusha-VirtualBox gnome-shell[1711]: Failed to store clipboard: Format image/bmp not supported
```

- **What command should I use to arrange the entries of a file**
  - **Alphabetically**

Command: sort filename

```
tanusha@tanusha-VirtualBox:~$ touch file1
tanusha@tanusha-VirtualBox:~$ cat file1
tanusha@tanusha-VirtualBox:~$ cat >file1
ball
cognizance
elephant
fire
water
apple
github
^Z
[1]+  Stopped                 cat > file1
tanusha@tanusha-VirtualBox:~$ more file1
ball
cognizance
elephant
fire
water
apple
github
tanusha@tanusha-VirtualBox:~$ sort file1
apple
ball
cognizance
elephant
fire
github
water
tanusha@tanusha-VirtualBox:~$
```

o Reverse order

Command: sort -r filename

```
tanusha@tanusha-VirtualBox:~$ sort -r file1
water
github
fire
elephant
cognizance
ball
apple
tanusha@tanusha-VirtualBox:~$ █
```

o Numerical order

Command: sort -n filename

```
tanusha@tanusha-VirtualBox:~$ cat >file1
1
44
23
54
14
31
8
0
10
^Z
[2]+  Stopped                 cat > file1
tanusha@tanusha-VirtualBox:~$ sort -n file1
0
1
8
10
14
23
31
44
54
```

- Copee is a hard-working cop. He found a case and almost at the
  verge of cracking it. It could be his best breakthrough. He has
  the list of criminals but lots of duplicates are there. He needs
  to find the only one that is **different**. He sought your help. How
  will you sort this issue?

Command: sort filename | uniq -u

```
tanusha@tanusha-VirtualBox:~$ cat >file2
virat
charan
jesus
manan
charan
manan
jesus
cristiano
messy
dhoni
rohit
patel
dhoni
^Z
[4]+  Stopped                 cat > file2
tanusha@tanusha-VirtualBox:~$ sort file2 | uniq -u
cristiano
messy
patel
rohit
virat
tanusha@tanusha-VirtualBox:~$ █
```

- **What are the Three parts of file's permission?**

Read- The Read permission refers to a user's capability to read the contents of the file.

Write- The Write permissions refer to a user's capability to write or modify a file or directory.

Execute- The Execute permission affects a user's capability to execute a file or view the contents of a directory.

Command: ls -l

```
tanusha@tanusha-VirtualBox:~$ ls -l
total 380
-rw-rw-r-- 1 tanusha tanusha   321 Jan 31 11:15 amstrong.sh
-rw------- 1 tanusha tanusha   273 Jan 31 12:28 amstrong.sh.save
-rwxrwxr-x 1 tanusha tanusha 16792 May  2 11:58 a.out
-rw-rw-r-- 1 tanusha tanusha   897 May  2 11:58 bankers.c
-rw-rw-r-- 1 tanusha tanusha   841 Apr 11 10:48 bestfit.c
drwxrwxr-x 3 tanusha tanusha  4096 Jun 21 23:18 cognizance
drwxrwxr-x 3 tanusha tanusha  4096 Jan 31 10:04 cseb
drwxr-xr-x 2 tanusha tanusha  4096 Nov  3  2021 Desktop
-rw-rw-r-- 1 tanusha tanusha   164 Jan 31 12:07 dir.sh
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Documents
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Downloads
-rwxrwxr-x 1 tanusha tanusha 16880 Feb 14 09:32 exe1
-rwxrwxr-x 1 tanusha tanusha 16784 Feb 14 09:32 exe2
-rw-rw-r-- 1 tanusha tanusha   266 Feb 14 09:31 exec1.c
-rw-rw-r-- 1 tanusha tanusha   200 Feb 14 09:31 exec2.c
-rwxrwxr-x 1 tanusha tanusha   253 Jan 31 10:40 fact.sh
-rw-rw-r-- 1 tanusha tanusha  1772 Feb 28 10:02 fcfs.c
-rw-rw-r-- 1 tanusha tanusha    24 Jun 21 23:42 file1
-rw-rw-r-- 1 tanusha tanusha    84 Jun 21 23:48 file2
drwxrwxr-x 4 tanusha tanusha  4096 Dec  1  2021 framac
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Music
drwxrwxr-x 2 tanusha tanusha  4096 Jan 31 11:32 oslab2
-rw-rw-r-- 1 tanusha tanusha   286 Jan 31 12:06 per.sh
drwxr-xr-x 2 tanusha tanusha  4096 Jun 21 18:14 Pictures
-rwxrwxr-x 1 tanusha tanusha 16960 Feb 14 09:31 pid
-rw-rw-r-- 1 tanusha tanusha   234 Feb 14 09:34 pid10.c
-rw-rw-r-- 1 tanusha tanusha   280 Feb 14 09:34 pid11.c
-rw-rw-r-- 1 tanusha tanusha   279 Feb  7 21:01 pid12_1.c
-rw-rw-r-- 1 tanusha tanusha   205 Feb  7 20:58 pid12_2.c
-rw-rw-r-- 1 tanusha tanusha   122 Feb 14 09:35 pid1.c
-rw-rw-r-- 1 tanusha tanusha   146 Feb  7 10:40 pid2.c
-rw-rw-r-- 1 tanusha tanusha   102 Feb  7 10:51 pid3.c
-rw-rw-r-- 1 tanusha tanusha   116 Feb 14 09:35 pid4.c
-rw-rw-r-- 1 tanusha tanusha   115 Feb 14 09:34 pid5.c
-rw-rw-r-- 1 tanusha tanusha   166 Feb 14 09:34 pid6.c
-rw-rw-r-- 1 tanusha tanusha   244 Feb 14 09:34 pid7.c
-rw-rw-r-- 1 tanusha tanusha   304 Feb 14 09:34 pid8.c
-rw-rw-r-- 1 tanusha tanusha   162 Feb 14 09:34 pid9.c
-rwxrwxr-x 1 tanusha tanusha 16864 Feb 28 11:38 pre
-rw-rw-r-- 1 tanusha tanusha  1318 Feb 28 12:14 premp.c
-rwxrwxr-x 1 tanusha tanusha 16848 Feb 28 11:46 pri
-rw-rw-r-- 1 tanusha tanusha  1641 Feb 28 12:16 prior.c
-rw-rw-r-- 1 tanusha tanusha   664 May  2 11:34 producer.c
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Public
-rwxrwxr-x 1 tanusha tanusha 16904 Feb 21 11:12 rec
-rw-rw-r-- 1 tanusha tanusha   693 Feb 14 11:47 receive1.c
-rw-rw-r-- 1 tanusha tanusha   459 Feb 14 11:42 receive.c
-rw-rw-r-- 1 tanusha tanusha  1321 Feb 28 11:48 robin.c
-rwxrwxr-x 1 tanusha tanusha 16800 Feb 28 11:48 rrb
-rwxrwxr-x 1 tanusha tanusha 16952 Feb 21 11:11 sen
-rw-rw-r-- 1 tanusha tanusha   702 Feb 14 12:23 sender1.c
-rw-rw-r-- 1 tanusha tanusha   550 Feb 14 11:36 sender.c
-rw-rw-r-- 1 tanusha tanusha  1282 Feb 28 10:03 sjf1.c
drwx------ 3 tanusha tanusha  4096 Sep  1  2021 snap
drwxrwxr-x 2 tanusha tanusha  4096 Jun 21 16:48 task4
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Templates
-rw-rw-r-- 1 tanusha tanusha   616 May  2 10:53 thread.c
drwxr-xr-x 2 tanusha tanusha  4096 Sep  1  2021 Videos
-rw-rw-r-- 1 tanusha tanusha   860 Apr 11 10:55 worstfit.c
tanusha@tanusha-VirtualBox:~$
```