

CSE302

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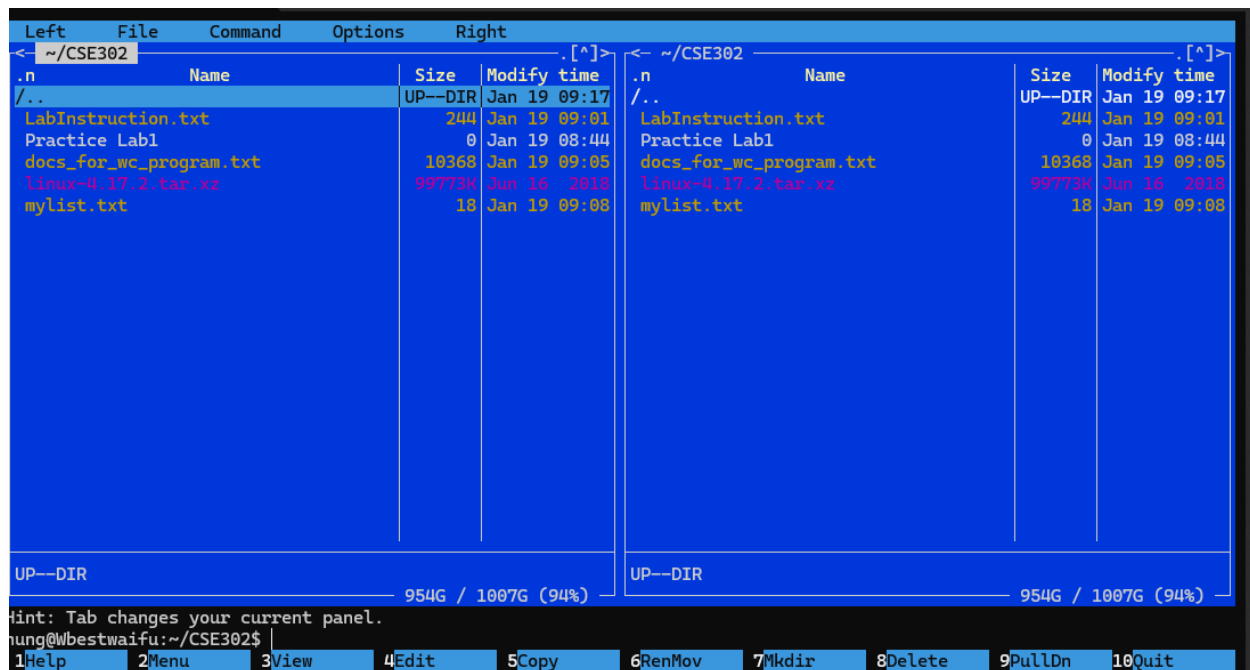
Practice Assignment 1 – Part-II

Capture the screen shots of the results for the following questions. Save each screen shot as the question number. Save all the screen shots in a word file and upload the file into Moodle.

Total Points : 100

0. Install the software named mc (midnight). Capture the screenshot of mc after it starts.

```
(Reading database ... 45110 files and directories currently installed.)
Preparing to unpack .../0-bzip2_1.0.8-5.1build0.1_amd64.deb ...
Unpacking bzip2 (1.0.8-5.1build0.1) ...
Selecting previously unselected package libssh2-1t64:amd64.
Preparing to unpack .../1-libssh2-1t64_1.11.0-4.1build2_amd64.deb ...
Unpacking libssh2-1t64:amd64 (1.11.0-4.1build2) ...
Selecting previously unselected package mailcap.
Preparing to unpack .../2-mailcap_3.70+nmu1ubuntu1_all.deb ...
Unpacking mailcap (3.70+nmu1ubuntu1) ...
Selecting previously unselected package mc-data.
Preparing to unpack .../3-mc-data_3%3a4.8.30-1build2_all.deb ...
Unpacking mc-data (3:4.8.30-1build2) ...
Selecting previously unselected package mc.
Preparing to unpack .../4-mc_3%3a4.8.30-1build2_amd64.deb ...
Unpacking mc (3:4.8.30-1build2) ...
Selecting previously unselected package unzip.
Preparing to unpack .../5-unzip_6.0-28ubuntu4.1_amd64.deb ...
Unpacking unzip (6.0-28ubuntu4.1) ...
Setting up unzip (6.0-28ubuntu4.1) ...
Setting up bzip2 (1.0.8-5.1build0.1) ...
Setting up mc-data (3:4.8.30-1build2) ...
Setting up libssh2-1t64:amd64 (1.11.0-4.1build2) ...
Setting up mailcap (3.70+nmu1ubuntu1) ...
Setting up mc (3:4.8.30-1build2) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
```



1. Display the current user 's name.

```
hung@Wbestwaifu:~/CSE302$ whoami
hung
```

2. Display the Operating System Information.

```
hung@Wbestwaifu:~/CSE302$ uname -a
Linux Wbestwaifu 5.15.167.4-microsoft-standard-WSL2 #1 SMP Tue Nov 5 00:21:55 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux
```

3. Display the default version of the shell.

```
hung@Wbestwaifu:~/CSE302$ echo $SHELL
/bin/bash
```

4. Display the path of the Shell.

```
hung@Wbestwaifu:~/CSE302$ which $SHELL
/bin/bash
```

5. Display the user id and corresponding name.

```
hung@Wbestwaifu:~/CSE302$ id
uid=1000(hung) gid=1000(hung) groups=1000(hung),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(vide
deo),46(plugdev),100(users),107(netdev)
```

6. Display the available disk space.

```

hung@Wbestwaifu:~/CSE302$ df -h
Filesystem      Size  Used Avail Use% Mounted on
none            3.9G   0 3.9G   0% /usr/lib/modules/5.15.167.4-microsoft-standard-WSL2
none            3.9G 4.0K 3.9G   1% /mnt/wsl
drivers         238G 131G 107G  56% /usr/lib/wsl/drivers
/dev/sdc        1007G  1.8G  954G   1% /
none            3.9G   88K 3.9G   1% /mnt/wslg
none            3.9G   0 3.9G   0% /usr/lib/wsl/lib
rootfs          3.9G  2.2M 3.9G   1% /init
none            3.9G 480K 3.9G   1% /run
none            3.9G   0 3.9G   0% /run/lock
none            3.9G   0 3.9G   0% /run/shm
tmpfs           4.0M   0 4.0M   0% /sys/fs/cgroup
none            3.9G   76K 3.9G   1% /mnt/wslg/versions.txt
none            3.9G   76K 3.9G   1% /mnt/wslg/doc
C:\             238G 131G 107G  56% /mnt/c
D:\             444G 266G 178G  60% /mnt/d
E:\             489G 421G  68G  87% /mnt/e
tmpfs           782M  16K 782M   1% /run/user/1000

```

7. Display currently running all processes with both user and root privilege.

```

hung@Wbestwaifu:~/CSE302$ ps -e
  PID TTY          TIME CMD
    1 ?           00:00:00 systemd
    2 ?           00:00:00 init-systemd(Ub
    8 ?           00:00:00 init
   53 ?           00:00:00 systemd-journal
   99 ?           00:00:00 systemd-udevd
  108 ?           00:00:00 systemd-resolve
  109 ?           00:00:00 systemd-timesyn
  152 ?           00:00:00 cron
  153 ?           00:00:00 dbus-daemon
  173 ?           00:00:00 systemd-logind
  187 ?           00:00:00 wsl-pro-service
  205 ?           00:00:00 rsyslogd
  210 hvc0          00:00:00 agetty
  225 tty1         00:00:00 agetty
  266 ?           00:00:00 unattended-upgr
  332 ?           00:00:00 SessionLeader
  334 ?           00:00:00 Relay(335)
  335 pts/0        00:00:00 bash
  336 pts/1        00:00:00 login
  427 ?           00:00:00 systemd
  428 ?           00:00:00 (sd-pam)
  441 pts/1        00:00:00 bash
  986 ?           00:00:00 polkitd
 2729 pts/0        00:00:00 ps

```

8. Display how much system resources have been used by the current running processes.

```

top - 09:21:55 up 1:21, 1 user, load average: 0.00, 0.00, 0.00
Tasks: 24 total, 1 running, 23 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 7818.9 total, 7255.5 free, 582.6 used, 217.3 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used, 7236.3 avail Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	21676	13100	9668	S	0.0	0.2	0:00.84	systemd
2	root	20	0	2616	1444	1320	S	0.0	0.0	0:00.00	init-systemd(Ub
8	root	20	0	2616	132	132	S	0.0	0.0	0:00.00	init
53	root	19	-1	66836	19520	18304	S	0.0	0.2	0:00.50	systemd-journal
99	root	20	0	24620	6620	4800	S	0.0	0.1	0:00.09	systemd-udev
108	systemd+	20	0	21452	11948	9752	S	0.0	0.1	0:00.11	systemd-resolve
109	systemd+	20	0	91020	6560	5708	S	0.0	0.1	0:00.15	systemd-timesyn
152	root	20	0	4236	2716	2480	S	0.0	0.0	0:00.01	cron
153	message+	20	0	9644	5284	4576	S	0.0	0.1	0:00.29	dbus-daemon
173	root	20	0	17976	8256	7232	S	0.0	0.1	0:00.16	systemd-logind
187	root	20	0	1755840	14056	9496	S	0.0	0.2	0:00.19	wsd-pro-service
205	syslog	20	0	222508	7336	4508	S	0.0	0.1	0:00.12	rsyslogd
210	root	20	0	3160	1188	1104	S	0.0	0.0	0:00.00	agetty
225	root	20	0	3116	1152	1060	S	0.0	0.0	0:00.00	agetty
266	root	20	0	107000	22744	13016	S	0.0	0.3	0:00.09	unattended-upgr
332	root	20	0	2620	124	0	S	0.0	0.0	0:00.00	SessionLeader
334	root	20	0	2620	128	0	S	0.0	0.0	0:00.22	Relay(335)
335	hung	20	0	6068	5332	3600	S	0.0	0.1	0:00.23	bash
336	root	20	0	6820	4800	4020	S	0.0	0.1	0:00.00	login
427	hung	20	0	20264	11436	9356	S	0.0	0.1	0:00.10	systemd
428	hung	20	0	21144	1724	0	S	0.0	0.0	0:00.00	(sd-pam)
441	hung	20	0	6056	5084	3576	S	0.0	0.1	0:00.01	bash
986	polkitd	20	0	308160	8028	7176	S	0.0	0.1	0:00.02	polkitd

9. Display the current date only

```

hung@Wbestwaifu:~/CSE302$ date +%F
2025-01-19

```

10. Display the current time only

```

hung@Wbestwaifu:~/CSE302$ date +%T
09:22:57

```

11. Ensure that you are in your home directory.

```

hung@Wbestwaifu:~/CSE302$ cd ~
hung@Wbestwaifu:~$

```

12. Create a new directory called "final" in your home directory.

```

hung@Wbestwaifu:~$ mkdir ~/final
hung@Wbestwaifu:~$

```

13. View the permissions of the newly created directory, "final".

```

hung@Wbestwaifu:~$ ls -ld ~/final
drwxr-xr-x 2 hung hung 4096 Jan 19 09:23 /home/hung/final

```

14. Create a new blank file named 'display.sh' in the "final" directory

```
hung@Wbestwaifu:~$ touch ~/final/display.sh
hung@Wbestwaifu:~$ |
```

15. Create a copy of “display.sh” called “report.sh.”

```
hung@Wbestwaifu:~$ cp ~/final/display.sh ~/final/report.sh
hung@Wbestwaifu:~$ |
```

16. Delete the file 'display.sh'.

```
hung@Wbestwaifu:~$ rm ~/final/display.sh
hung@Wbestwaifu:~$ |
```

17. List the files in “/etc” directory in the ascending order of their access time.

```

hung@Wbestwaifu:~$ ls -ltu /etc
total 800
-rw-r--r-- 1 root root      19223 Jan 19 09:14 ld.so.cache
-rw-r--r-- 1 root root      3674 Jan 19 09:14 mailcap
-rw-r--r-- 1 root root       449 Jan 19 09:14 mailcap.order
drwxr-xr-x 2 root root      4096 Jan 19 09:14 mc
-rw-r--r-- 1 root root     11424 Jan 19 08:55 nanorc
-rw-r--r-- 1 root root      2967 Jan 19 08:50 debconf.conf
-rw-r--r-- 1 root root      4343 Jan 19 08:49 sudo.conf
-r--r----- 1 root root      1800 Jan 19 08:49 sudoers
drwxr-xr-x 2 root root      4096 Jan 19 08:49 sudoers.d
-rw-r--r-- 1 root root      5230 Jan 19 08:48 manpath.config
-rw-r--r-- 1 root root     12813 Jan 19 08:22 services
drwxr-xr-x 2 root root      4096 Jan 19 08:17 cron.hourly
-rw-r--r-- 1 root root      2584 Jan 19 08:11 gai.conf
lrwxrwxrwx 1 root root        20 Jan 19 08:11 resolv.conf -> /mnt/wsl/resolv.conf
-rw-r--r-- 1 root root      4942 Jan 19 08:11 wgetrc
drwxr-xr-x 2 root root      4096 Jan 19 08:04 environment.d
-rw-r--r-- 1 root root      1875 Jan 19 08:04 inputrc
-rw-r--r-- 1 root root        92 Jan 19 08:04 host.conf
-rw-r--r-- 1 root root       406 Jan 19 08:04 hosts
-rw-r--r-- 1 root root      1213 Jan 19 08:04 rsyslog.conf
drwxr-xr-x 2 root root      4096 Jan 19 08:04 rsyslog.d
-rw-r--r-- 1 root root       685 Jan 19 08:04 e2scrub.conf
lrwxrwxrwx 1 root root        23 Jan 19 08:04 vtrgb -> /etc/alternatives/vtrgb
-rw-r--r-- 1 root root       106 Jan 19 08:04 environment
drwxr-xr-x 2 root root      4096 Jan 19 08:04 cron.d
drwxr-xr-x 8 root root      4096 Jan 19 08:04 networkd-dispatcher

drwxr-xr-x 2 root root      4096 Jan 19 08:04 modprobe.d
-rw-r--r-- 1 root root      2996 Jan 19 08:04 locale.alias
-rw-r--r-- 1 root root      1422 Jan 19 08:04 passwd
-rw-r--r-- 1 root root        34 Jan 19 08:04 ld.so.conf
drwxr-xr-x 2 root root      4096 Jan 19 08:04 ld.so.conf.d
-rw-r--r-- 1 root root        37 Jan 19 08:04 fstab
-rw-r--r-- 1 root root        20 Jan 19 08:04 wsl.conf
-rw-r----- 1 root shadow    656 Jan 8 09:17 gshadow
-rw-r--r-- 1 root root       730 Jan 8 09:17 group-
-rw-r----- 1 root shadow    615 Jan 8 09:17 gshadow-
drwxr-xr-x 2 root root      4096 Jan 8 09:17 skel
-rw-r--r-- 1 root root        18 Jan 8 09:17 subgid
-rw-r--r-- 1 root root        18 Jan 8 09:17 subuid
-rw-r--r-- 1 root root     3444 Jan 8 09:17 adduser.conf
-rw-r--r-- 1 root root     1419 Jan 8 09:17 passwd-
-rw-r--r-- 1 root root         0 Jan 8 09:17 subgid-
-rw-r--r-- 1 root root         0 Jan 8 09:17 subuid-
-rw-r--r-- 1 root root       267 Jan 8 09:16 legal
-rw-r----- 1 root shadow    702 Jan 8 09:16 shadow-
-rw-r--r-- 1 root root       132 Sep 28 03:14 shells
drwxr-xr-x 2 root root      4096 Sep 28 03:14 sgml
drwxr-xr-x 2 root root      4096 Sep 28 03:14 PackageKit
drwxr-xr-x 2 root root      4096 Sep 28 03:14 apparmor
drwxr-xr-x 2 root root      4096 Sep 28 03:14 byobu
drwxr-xr-x 5 root root      4096 Sep 28 03:14 cloud

```

18. Find out all text files in /etc directory.

```
hung@Wbestwaifu:~$ find /etc -type f -name "*.txt"
find: '/etc/polkit-1/rules.d': Permission denied
/etc/X11/rgb.txt
find: '/etc/credstore': Permission denied
find: '/etc/ssl/private': Permission denied
find: '/etc/credstore.encrypted': Permission denied
```

19. Copy the file /var/log/bootstrap.log to your current directory.

```
hung@Wbestwaifu:~$ cp /var/log/bootstrap.log /home/hung/final
hung@Wbestwaifu:~$ |
```

20. Show the system's host name.

```
hung@Wbestwaifu:~$ hostname
Wbestwaifu
```

21. Show the system's IP address only.

```
hung@Wbestwaifu:~$ hostname -I
172.18.180.77
```

22. Test if a host is reachable.

```
hung@Wbestwaifu:~$ ping -c 4 example.com
PING example.com (96.7.128.175) 56(84) bytes of data:
64 bytes from a96-7-128-175.deploy.static.akamaitechnologies.com (96.7.128.175): icmp_seq=1 ttl=50 time=220 ms
64 bytes from a96-7-128-175.deploy.static.akamaitechnologies.com (96.7.128.175): icmp_seq=2 ttl=50 time=211 ms
64 bytes from a96-7-128-175.deploy.static.akamaitechnologies.com (96.7.128.175): icmp_seq=3 ttl=50 time=212 ms
64 bytes from a96-7-128-175.deploy.static.akamaitechnologies.com (96.7.128.175): icmp_seq=4 ttl=50 time=211 ms

--- example.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 2998ms
rtt min/avg/max/mdev = 211.145/213.584/219.731/3.564 ms
```

23. Display the number of lines in the /etc/passwd file.

```
hung@Wbestwaifu:~$ wc -l /etc/passwd
28 /etc/passwd
```

24. Display the lines that contain the string 'not installed' in /var/log/bootstrap.log.

```
hung@Wbestwaifu:~$ grep 'not installed' /var/log/bootstrap.log
Package libc6 is not installed.
Package libdebconfclient0 is not installed.
Package libselinux1 is not installed.
awk is not installed.
Package awk is not installed.
Package libc6 is not installed.
Package libcrypt1 is not installed.
libbz2-1.0 is not installed.
libc6 is not installed.
liblzma5 is not installed.
libmd0 is not installed.
libselinux1 is not installed.
libzstd1 is not installed.
zlib1g is not installed.
Package libbz2-1.0 is not installed.
Package libc6 is not installed.
Package liblzma5 is not installed.
Package libmd0 is not installed.
Package libselinux1 is not installed.
Package libzstd1 is not installed.
Package zlib1g is not installed.
Package tar is not installed.
Package libgcc-s1 is not installed.
libcrypt1 is not installed.
```