

<https://classroom.google.com/c/ODE3NzU4OTg5NzE4?cjc=bjkig3tw>
bjkig3tw

```
1 cd /
2 ls -l
3 cd
4 echo Hello
5 echo Hi
6 echo $PATH
7 echo $HOME
8 pwd
9 echo $0
10 echo $SHELL
11 Name=Imran
12 echo $Name
13 env
14 uname -a
15 uname -r
16 su - root
17 su root
18 su - root
19 pwd
20 su - root
21 su root
22 date
23 date +%T
24 date +%B
25 date +%D
26 date +%Y
27 date --help
28 date +%j
29 date -s "2025-04-10 11:22:44"
30 su -
31 timedatectl
32 su -
33 id student
34 id root
35 id u1
36 whoami
37 su -
38 who am i
39 who -w
40 tty
41 history
```

```
2 pwd
3 exit
4 pwd
5 exit
6 date -s "2025-04-10 11:22:44"
7 date
8 exit
9 timedatectl
10 timedatectl set-time "2025-10-28 18:48:11"
11 timedatectl
12 timedatectl status
13 timedatectl list-timezones
14 timedatectl set-timezone Africa/Juba
15 timedatectl
16 timedatectl set-timezone Asia/Kolkata
17 timedatectl
18 timedatectl set-ntp true
19 vim /etc/chrony.conf
20 exit
21 whoami
22 exit
23 timedatectl
24 history
```

```
42 su -
43 man cat
44 cd Desktop
45 pwd
46 cat > File1
47 cat >> File1
48 cat < File1
49 cat File1
50 cat > File2
51 ls -l
52 cat File2
53 cat File1
54 cat File1 File2 > File3
55 cat < File3
56 man touch
57 touch F1 F2 F3 F4
58 ls -l
59 touch k{1..4}
```

```
60 ls -l
61 touch -d "2025-04-10 11:22:44" File1
62 ls -l
63 ls
64 ls -l
65 history
42 su -
43 man cat
44 cd Desktop
45 pwd
46 cat > File1
47 cat >> File1
48 cat < File1
49 cat File1
50 cat > File2
51 ls -l
52 cat File2
53 cat File1
54 cat File1 File2 > File3
55 cat < File3
56 man touch
57 touch F1 F2 F3 F4
58 ls -l
59 touch k{1..4}
60 ls -l
61 touch -d "2025-04-10 11:22:44" File1
62 ls -l
63 ls
64 ls -l
65 history
```

```
1 cd /
2 ls -l
3 cd
4 cd Desktop
5 cat > File1
6 cat > File2
7 cat File1 File2 > File3
8 touch f{1..4}
9 touch k{1..4}
10 rm rf f{1..4}
11 rm -rf f{1..4}
12 touch f{1..4}
```

```
13 ls -l
14 clear
15 mkdir dir1 dir2 dir3 dir4
16 mkdir d{1..4}
17 ls -l
18 mkdir -p L1/L2/L3/L4
19 ls -l
20 ls -R L1
21 tree L1
22 su -
23 tree L1
24 mkdir -p NIT/{Linux/{Rhcsa,Rhce},Windows/{Mcsa,Mcse},Oracle/{Sql,Plsql}}
25 ls -l
26 ls -R NIT
27 ls -l
28 cd NIT
29 pwd
30 ls -l
31 cd Linux
32 pwd
33 ls -l
34 cd Rhcsa
35 pwd
36 ls -l
37 cd ..
38 pwd
39 cd ../../..
40 pwd
41 cd ~
42 pwd
43 cd
44 pwd
45 cd Desktop/NIT/Linux/Rhcsa
46 pwd
47 cd
48 pwd
49 cd Desktop
50 pwd
51 ls -l
52 cat File1
53 cat File2
54 cp File1 File2
55 cat File2
```

```
56 cp File1 New1
57 ls -l
58 cat New1
59 cp File1 dir1
60 cd dir1
61 pwd
62 ls -l
63 cd ..
64 pwd
65 ls -l dir1
66 cp dir1 dir2
67 cp -rvf dir1 dir2
68 cat File1
69 cat File2
70 cat > File2
71 cat File2
72 mv File1 File2
73 cat File2
74 mv File2 New2
75 mv New2 dir2
76 mv dir2 dir4
77 ls -l dir4
78 ls -l
79 mv dir3 demo
80 ls -l
81 rm File3
82 ls -l
83 rm f3
84 ls -l
85 rm f*
86 ls -l
87 rm k*
88 ls -l
89 rmdir dir1
90 rmdir demo
91 rmdir d1
92 ls -l
93 rmdir d3
94 ls -l
95 rm -rvf dir1
96 ls -l
97 rm -rvf dir4
98 ls -l
```

```
99 rm -rf *
100 ls -l
101 history

1 cd /
2 ls -l
3 cd
4 cd Desktop
5 cd
6 cd Desktop
7 touch File{1..4}
8 mkdir dir{1..4}
9 pwd
10 ls -l
11 cd /dev
12 ls -l
13 ls -l | grep ^b
14 cd
15 cd /
16 ls -l
17 ls -l | grep ^l
18 ls -l
19 cd
20 cd Desktop
21 file File1
22 file File2
23 file dir1
24 file /dev/sda
25 file /bin
26 file /etc/passwd
27 cd
28 pwd
29 ls -l
30 cat > soft
31 ls -l
32 pwd
33 cd Desktop
34 pwd
35 ln -s /home/student/soft s1
36 cat s1
37 cat /home/student/soft
38 cat >> s1
39 cat s1
```

```
40 cat /home/student/soft
41 ls -l
42 file s1
43 du -h s1
44 du -h /home/student/soft
45 ls -i s1
46 ls -i /home/student/soft
47 rm -rf /home/student/soft
48 cat s1
49 cd
50 pwd
51 cat > hard
52 ls -l
53 cat hard
54 cat hard
55 cd Desktop
56 pwd
57 ln /home/student/hard h1
58 cat h1
59 ls -l
60 cat >> h1
61 cat h1
62 cat /home/student/hard
63 du -h h1
64 du -h /home/student/hard
65 ls -i h1
66 ls -i /home/student/hard
67 rm -rf /home/student/hard
68 cat h1
69 ls -l
70 touch f{1..4}
71 touch k{1..4}
72 mkdir d{1..4}
73 ls -l
74 ls
75 ls -l
76 ll
77 ls -al
78 touch .L1
79 ls -l
80 mkdir .demo
81 ls -l
82 ls -al
```

```
83 ls -l
84 mv .L1 L1
85 ls -l
86 mv .demo demo
87 ls -l
88 ls -l f*
89 ls -l k*
90 ls -l
91 ls -l [kf]*
92 ls -l [kfF]*
93 ls -l [!kfF]*
94 touch rat cat mat bat hat fat
95 ls -l
96 ls -l *at
97 ls -l ?at
98 ls -l F*
99 ls -l F?
100 ls -l f?
101 ls -l ???
102 ls -l ????
103 ls -l ??????
104 ls -l File1
105 ls -l dir1
106 ls -ld dir1
107 ls -l [a-d]*
108 touch abcd
109 ls -l [a-d]*
110 ls -ld [a-d]*
111 ls -l
112 ls -ltr
113 history
```

```
1 cat /etc/passwd
2 less /etc/passwd
3 more /etc/passwd
4 ps -aux
5 ps -aux | less
6 cat /etc/passwd
7 grep root /etc/passwd
8 grep -n root /etc/passwd
9 grep -n student /etc/passwd
10 grep -e root -e student /etc/passwd
11 grep -n -e root -e student /etc/passwd
```

```
12 grep root /etc/passwd /etc/group
13 grep -v root /etc/passwd
14 cat > File1
15 cat File1
16 grep hello File1
17 grep -i hello File1
18 grep -nB4 wheel /etc/group
19 grep -nB6 wheel /etc/group
20 grep -nA4 wheel /etc/group
21 grep -nA6 wheel /etc/group
22 cd /dev
23 ls -l
24 ls -l | grep ^b
25 ls -l | grep t$ 
26 ls -l | grep sda
27 wc /etc/passwd
28 pwd
29 ls -l | grep ^b | wc -l
30 wc -l /etc/passwd
31 wc -w /etc/passwd
32 wc -c /etc/passwd
33 ls -l | grep ^b
34 ls -l | grep ^b | wc -l
35 cd
36 head /etc/passwd
37 head -n4 /etc/passwd
38 head -n6 /etc/passwd
39 tail /etc/passwd
40 tail -n4 /etc/passwd
41 cat > File2
42 cat File2
43 sort File2
44 cat File2
45 sort File2
46 sort -r File2
47 vim File2
48 cat File2
49 sort File2
50 sort -u File2
51 sort -u File2 > File3
52 ls -l
53 cat File3
54 man sed
```

```
55 cat > File4
56 sed 's/Linux/Windows/1' File4
57 sed 's/Linux/Windows/2' File4
58 sed 's/Linux/Windows/g' File4
59 find / -name File1
60 find / -name File2
61 find / -name sda
62 ls -i
63 find / -inum 53552053
64 find / -size 10k
65 find / -size +10k
66 find / -size -10k
67 find / -type b
68 find / -type c
69 find / -type f
70 find / -user student
71 find / -group student
72 history
```

```
1 man ls
2 man passwd
3 man -k xfs
4 man 8 xfs_gowfs
5 man 8 xfs_growfs
6 man -k passwd
7 man 5 passwd
8 man passwd
9 man -t passwd > passwd.ps
10 ls -l
11 file passwd.ps
12 cat passwd.ps
13 vim passwd.ps
14 evince passwd.ps
15 lp passwd.ps -P 1-2
16 man -k tar
17 man 5 tar
18 man -k .
19 man -k . | grep cat
20 man -k . | grep mkdir
21 ls -l
22 pwd
23 ls -l > /home/student/Desktop/File1
24 ls -la
```

```
25 ls -la >> /home/student/Desktop/File1
26 ln -a
27 ln -a 2> /home/student/Desktop/File2
28 find / -type b
29 find / -type b 2>> /home/student/Desktop/File2
30 find / -type b
31 find / -type b 2> /dev/null
32 find / -type b
33 find / -type b > /home/student/Desktop/output.txt 2> /home/student/Desktop/err.txt
34 find / -name File1
35 find / -name File1 &> /home/student/Desktop/File4
36 find / -type b
37 find / -type b &>> /home/student/Desktop/File4
38 journalctl
39 journalctl > log.txt
40 ls -l
41 vim log.txt
42 history
```

User Management

```
1 useradd u1
2 id u1
3 id u2
4 less /etc/passwd
5 useradd u2 -u 2002 -c Hr -d /home/dir2 -s /sbin/nologin
6 tail /etc/passwd
7 su - u1
8 su - u2
9 usermod -s /bin/bash u2
10 tail /etc/passwd
11 su - u2
12 usermod -m -d /home/u2 u2
13 tail /etc/passwd
14 su - u2
15 usermod -l test-user u2
16 tail /etc/passwd
17 su - test-user
18 usermod -m -d /home/test-user test-user
19 tail /etc/passwd
20 su - test-user
21 passwd u1
22 su - u1
```

```
23 exit
24 usermod -L u1
25 exit
26 passwd -S u1
27 usermod -U u1
28 passwd -S u1
29 exit
30 tail /etc/passwd
31 userdel u1
32 tail /etc/passwd
33 cd /home
34 ls -l
35 userdel -r test-user
36 tail /etc/passwd
37 ls -l
38 rm -rf u1
39 ls -l
40 vim /etc/passwd
41 cd
42 history
```

user password management

```
1 useradd u1
2 tail /etc/passwd
3 tail /etc/shadow
4 passwd u1
5 tail /etc/shadow
6 chage -l u1
7 chage u1
8 tail /etc/shadow
9 chage -l u1
10 chage u1
11 chage -l u1
12 chage -h
13 chage -E 2025-12-08 u1
14 chage -l u1
15 chage -W 2 u1
16 chage -l u1
17 exit
18 chage -d 0 u1
19 chage -l u1
20 exit
21 history
```

group management

```
1 groupadd redhat
2 tail /etc/group
3 groupadd -g 2002 linux
4 tail /etc/group
5 groupmod -h
6 groupmod -n rhel linux
7 tail /etc/group
8 usermod -og 2002 redhat
9 groupmod -og 2002 redhat
10 tail /etc/group
11 tail /etc/gshadow
12 groupmod -p 1234 rhel
13 tail /etc/gshadow
14 gpasswd rhel
15 tail /etc/gshadow
16 gpasswd -r rhel
17 tail /etc/gshadow
18 history
```

adding user in to group

```
1 useradd u1
2 useradd u2
3 useradd u3
4 useradd u4
5 tail /etc/passwd
6 groupadd redhat
7 tail /etc/group
8 usermod -aG redhat u1
9 usermod -aG redhat u2
10 tail /etc/group
11 id u1
12 id u2
13 gpasswd -M u3,u4 redhat
14 tail /etc/group
15 tail /etc/gshadow
16 gpasswd -A u1 redhat
17 tail /etc/gshadow
18 su - u1
19 tail /etc/gshadow
```

20 gpasswd -d u3 redhat

21 tail /etc/gshadow

22 history

23 groupdel redhat

24 tail /etc/group

25 history

1 groupadd redhat

2 tail /etc/group

3 useradd u1 -u 2002 -g 1001

4 tail /etc/passwd

5 id u1

6 groupdel redhat

7 userdel u1

8 groupdel redhat

9 history

File Permissions

1 mkdir pepsi

2 ls -ld pepsi

3 umask

4 exit

5 umask 0020

6 umask

7 mkdir redhat

8 rm -rf redhat

9 mkdir redbull

10 ls -l

11 exit

12 umask

13 exit

14 touch File1

15 ls -l

16 umask

17 umask 0020

18 umask

19 exit

20 umask

21 vim /etc/profile

22 source /etc/profile

23 umask

24 exit

```
25 umask
26 exit
27 vim /etc/bashrc
28 exit
29 vim /etc/profile
30 source /etc/profile
31 umask
32 vim /etc/bashrc
33 exit
34 ls -l
35 chmod u-x,g+w,o=r pepsi
36 ls -l
37 chmod -R u-x,g+w,o=r pepsi
38 ls -l
39 chmod a=rwx pepsi
40 ls -l
41 chmod -R a=rwx pepsi
42 chmod 755 pepsi
43 ls -l
44 chmod -R 755 pepsi
45 ls -l
46 chown student pepsi
47 ls -l
48 chown -R student pepsi
49 useradd i1
50 useradd i2
51 groupadd redhat
52 usermod -aG redhat i1
53 usermod -aG redhat i2
54 id i1
55 id i2
56 chgrp redhat pepsi
57 ls -l
58 cd pepsi
59 su i1
60 su i2
61 cd
62 chmod g+w pepsi
63 ls -l
64 cd pepsi
65 su i1
66 su i2
67 cd
```

68 history

Special Permissions

```
2 fdisk -l
3 exit
4 which fdisk
5 ls -l /sbin/fdisk
6 chmod u+s /sbin/fdisk
7 ls -l /sbin/fdisk
8 exit
9 mkdir redbull
10 ls -ld redbull
11 umask
12 useradd i1
13 useradd i2
14 groupadd nit
15 usermod -aG nit i1
16 usermod -aG nit i2
17 chgrp nit redbull
18 ls -l
19 chmod g+w redbull
20 ls -l
21 cd redbull
22 su i1
23 su i2
24 cd
25 chmod g+s redbull
26 ls -l
27 cd redbull
28 su i1
29 su i2
30 su i1
31 cd
32 mkdir 7up
33 ls -l
34 chmod g+w 7up
35 chmod o+w 7up
36 chmod g-w 7up
37 ls -l
38 useradd l1
39 useradd l2
40 cd 7up
```

```
41 su l1
42 su l2
43 cd
44 chmod o+t 7up
45 ls -l
46 cd 7up
47 su l1
48 cd
49 history
```

ACL (Access Control List)

```
1 mkdir oppo
2 useradd Balu
3 useradd Venket
4 useradd Nani
5 useradd Raju
6 useradd Rani
7 groupadd NIT
8 usermod -aG NIT Raju
9 usermod -aG NIT Rani
10 id Raju
11 id Rani
12 ls -l
13 getfacl oppo
14 setfacl -m u:Balu:rwx,g:NIT:rwx,o::r-- oppo
15 ls -l
16 getfacl oppo
17 cd oppo
18 su Balu
19 su Raju
20 su Rani
21 su Nani
22 cd
23 setfacl -R -m u:Balu:rwx,g:NIT:rwx,o::r-- oppo
24 getfacl oppo
25 setfacl -m m::r-- oppo
26 getfacl oppo
27 setfacl -R -m m::r-- oppo
28 getfacl oppo
29 setfacl -m m:rwx oppo
30 getfacl oppo
31 setfacl -m d:u:Nani:rwx oppo
```

```
32 getfacl oppo
33 cd oppo
34 cd
35 cd oppo
36 su Balu
37 su Nani
38 cd dir1
39 pwd
40 su Nani
41 cd
42 getfacl oppo
43 mkdir nokia
44 ls -ld nokia
45 getfacl nokia
46 getfacl oppo | setfacl --set-file=- nokia
47 getfacl oppo | setfacl --set-file=- nokia
48 ls -ld nokia
49 getfacl nokia
50 getfacl oppo
51 setfacl -x u:Balu oppo
52 setfacl -x g:NIT oppo
53 getfacl oppo
54 setfacl -b oppo
55 getfacl oppo
56 ls -
57 history
```

Controlling System Services

```
1 systemctl
2 systemctl --all
3 systemctl -l
4 systemctl list-unit
5 systemctl list-units
6 systemctl list-unit-files
7 systemctl
8 systemctl --type=service
9 systemctl --type=service --all
10 systemctl --type=target
11 systemctl status sshd.service
12 systemctl stop sshd.service
13 systemctl status sshd.service
14 systemctl start sshd.service
```

```
15 systemctl status sshd.service
16 systemctl restart sshd.service
17 systemctl status sshd.service
18 systemctl reload sshd.service
19 systemctl status sshd.service
20 systemctl is-active sshd.service
21 systemctl is-enabled sshd.service
22 systemctl stop sshd.service
23 systemctl status sshd.service
24 reboot
25 systemctl status sshd.service
26 systemctl disable sshd.service
27 systemctl status sshd.service
28 reboot
29 systemctl status ss
30 systemctl status ssd
31 systemctl status sshd
32 systemctl enable sshd
33 systemctl status sshd
34 reboot
35 systemctl status sshd.service
36 systemctl status firewalld.service
37 systemctl mask firewalld.service
38 systemctl stop firewalld.service
39 systemctl status firewalld.service
40 systemctl start firewalld.service
41 reboot
42 systemctl status firewalld.service
43 systemctl unmask firewalld.service
44 systemctl status firewalld.service
45 systemctl start firewalld.service
46 systemctl status firewalld.service
47 systemctl get-default
48 systemctl set-default multi-user.target
49 systemctl get-default
50 reboot
51 systemctl get-default
52 systemctl set-default graphical.target
53 reboot
54 systemctl isolate multi-user.target
55 exit
56 history
```

