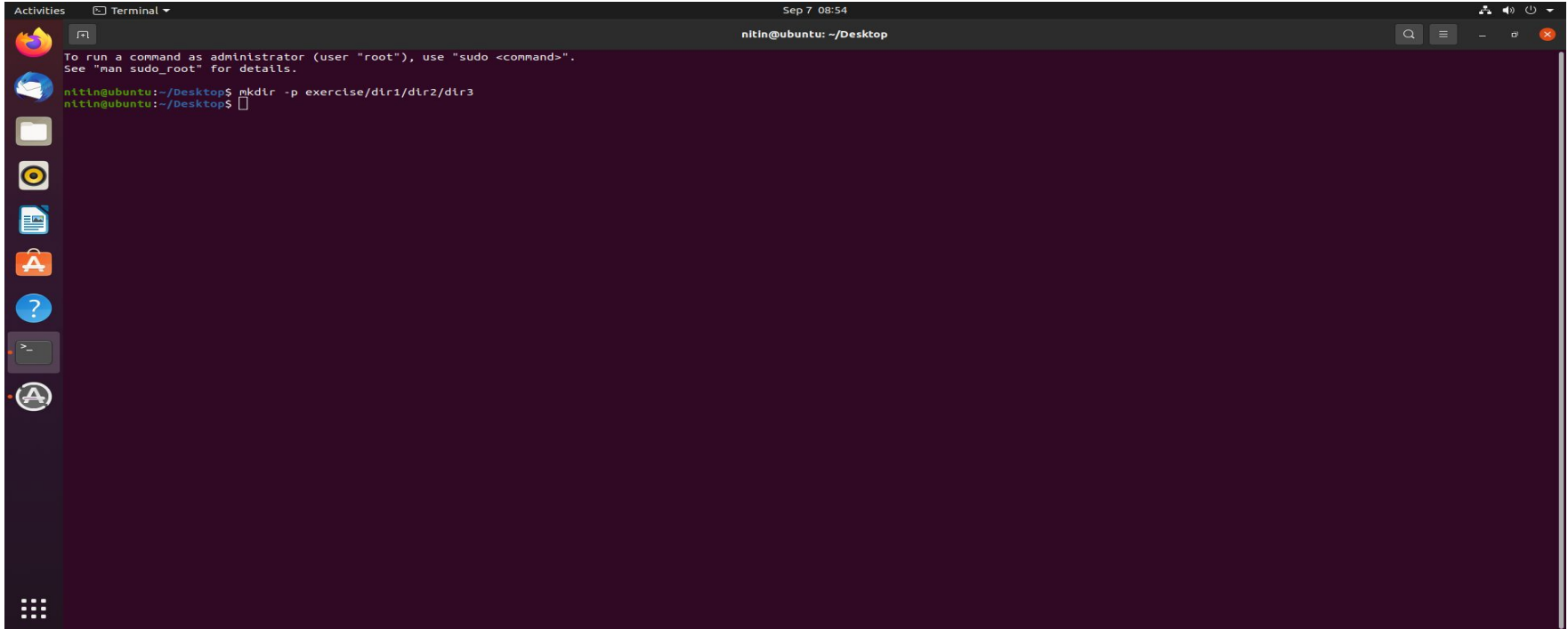




Introduction to linux

By Nitin Kumar

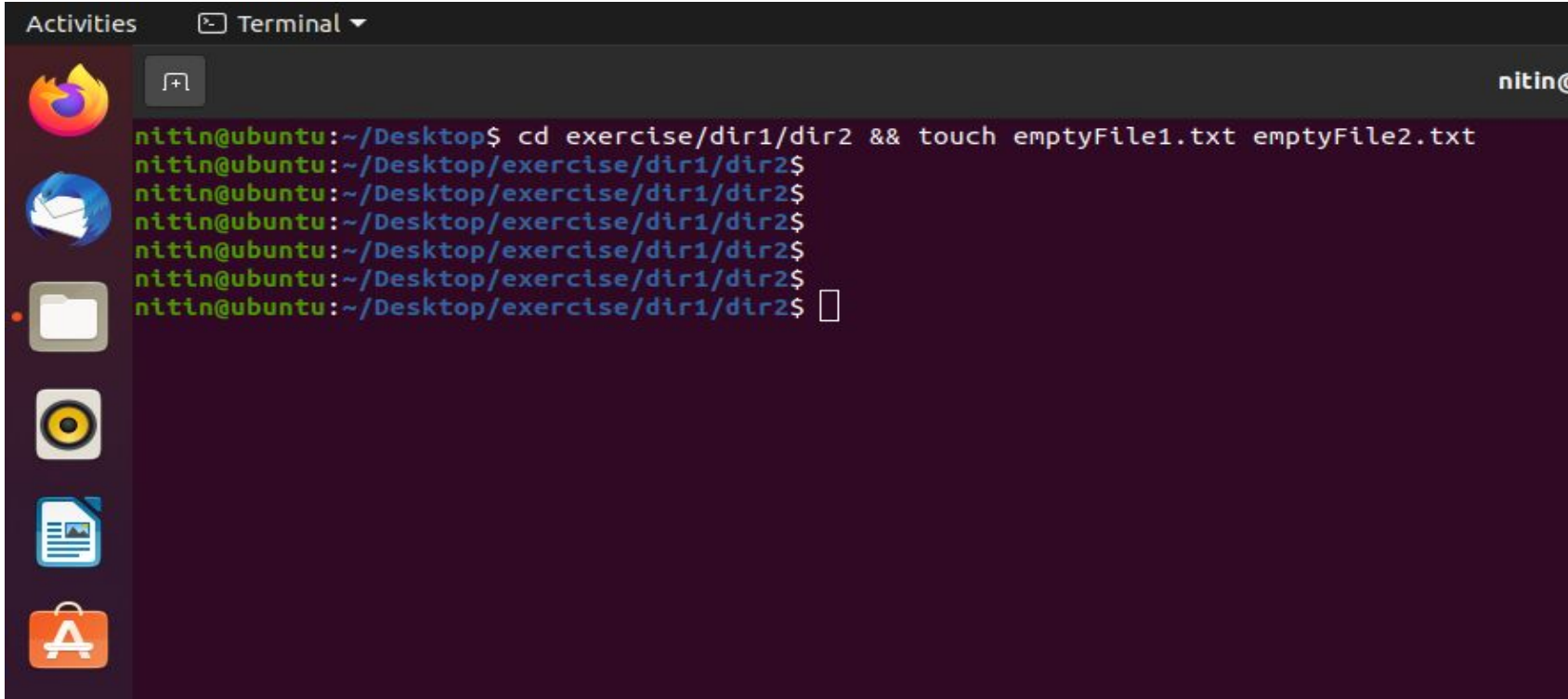
1. Create a directory "exercise" inside your home directory and create nested(dir1/dir2/dir3) directory structure inside "excerise" with single command.



A screenshot of a Linux terminal window. The window title is "Terminal" and the current directory is "~/Desktop". The prompt is "nitin@ubuntu: ~/Desktop". The command entered is "mkdir -p exercise/dir1/dir2/dir3". The output is a blank line, indicating the command was successful. The terminal window is dark-themed with a purple background. On the left side, there is a vertical dock with various application icons. The top of the window shows system status icons and the date "Sep 7 08:54".

```
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
nitin@ubuntu:~/Desktop$ mkdir -p exercise/dir1/dir2/dir3  
nitin@ubuntu:~/Desktop$
```

2. Create two empty files inside dir2 directory: emptyFile1, emptyFile2 in single command



A screenshot of a Linux terminal window. The title bar shows 'Activities' and 'Terminal'. The terminal text shows a user named 'nitin' at an 'ubuntu' machine. The user navigates to the directory '~/Desktop/exercise/dir1/dir2' and runs the command 'touch emptyFile1.txt emptyFile2.txt' to create two empty files. The prompt returns after the command is executed.

```
nitin@ubuntu:~/Desktop$ cd exercise/dir1/dir2 && touch emptyFile1.txt emptyFile2.txt
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
```

3. Create one file file1.txt containing text "hello world" and save it.

```
nitin@ubuntu:~/Desktop$ touch file1.txt
nitin@ubuntu:~/Desktop$ nano file1.txt
nitin@ubuntu:~/Desktop$
```

4. Find a "passwd" file using find command inside /etc. copy this files as passwd_copy and then rename this file as passwd_backup.

5. Try reading `passwd_backup` file in multiple tools: `less`, `more`, `cat`, `strings` etc and find the difference in their usage.

.Using `cat`

```
hitin@ubuntu:/etc$ cat passwd_backup
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
ssm:x:11:11:ssm:/bin:/usr/sbin/nologin
```

5. Try reading passwd_backup file in multiple tools: less, more, cat, strings etc and find the difference in their usage.

.Using less

```
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
halt:x:65534:65534:halt:/sbin:/sbin/halt
```

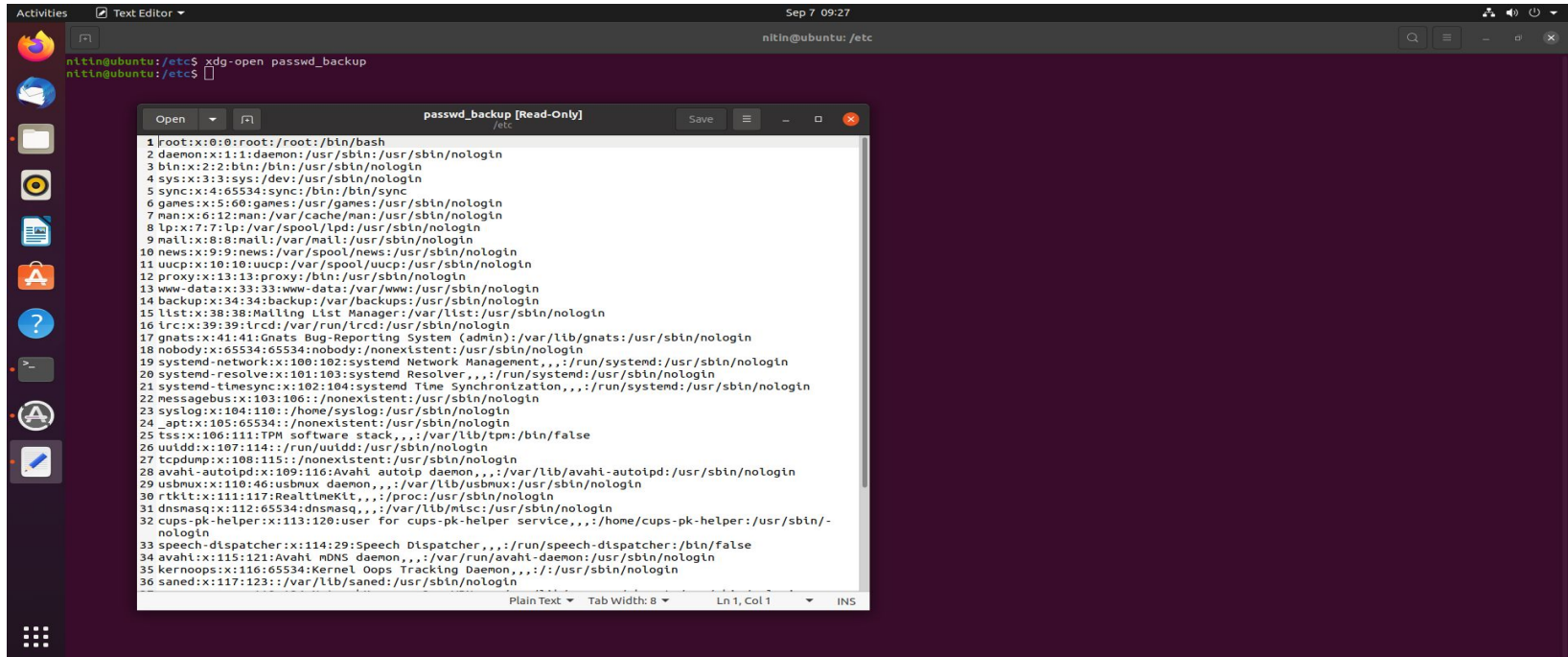

5. Try reading passwd_backup file in multiple tools: less, more, cat, strings etc and find the difference in their usage.

.Using more

```
nitin@ubuntu:/etc$ more passwd_backup
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106:/:/nonexistent:/usr/sbin/nologin
syslog:x:104:110:/:home/syslog:/usr/sbin/nologin
_apt:x:105:65534:/:/nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
uuid:x:107:114:/:run/uuid:/usr/sbin/nologin
tcpdump:x:108:115:/:/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kerneloops:x:116:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
```


5. Try reading passwd_backup file in multiple tools: less, more, cat, strings etc and find the difference in their usage.

.Using xgd-open



```

nltin@ubuntu: /etc$ xgd-open passwd_backup
nltin@ubuntu: /etc$

passwd_backup [Read-Only]
/etc

1 |root:x:0:0:root:/root:/bin/bash
2 |daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
3 |bin:x:2:2:bin:/bin:/usr/sbin/nologin
4 |sys:x:3:3:sys:/dev:/usr/sbin/nologin
5 |sync:x:4:65534:sync:/bin:/bin/sync
6 |games:x:5:60:games:/usr/games:/usr/sbin/nologin
7 |man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
8 |lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
9 |mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
10 |news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
11 |uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
12 |proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
13 |www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
14 |backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
15 |list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
16 |irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
17 |gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
18 |nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
19 |systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
20 |systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
21 |systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
22 |messagebus:x:103:106:,:/nonexistent:/usr/sbin/nologin
23 |syslog:x:104:101::/home:/usr/sbin/nologin
24 |_apt:x:105:65534:,:/nonexistent:/usr/sbin/nologin
25 |tss:x:106:111:TPM software stack,,:/var/lib/tpm:/bin/false
26 |uidd:x:107:114::/run/uidd:/usr/sbin/nologin
27 |tcpdump:x:108:115:,:/nonexistent:/usr/sbin/nologin
28 |avahi-autoipd:x:109:116:avahi-autoipd daemon,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
29 |usbmux:x:110:46:usbmux daemon,,:/var/lib/usbmux:/usr/sbin/nologin
30 |rtkit:x:111:117:RealtimeKit,,:/proc:/usr/sbin/nologin
31 |dnsmasq:x:112:65534:dnsmasq,,:/var/lib/misc:/usr/sbin/nologin
32 |cups-pk-helper:x:113:120:user for cups-pk-helper service,,:/home/cups-pk-helper:/usr/sbin/nologin
33 |speech-dispatcher:x:114:29:Speech Dispatcher,,:/run/speech-dispatcher:/bin/false
34 |avahi:x:115:121:Avahi mDNS daemon,,:/var/run/avahi-daemon:/usr/sbin/nologin
35 |kernoops:x:116:65534:Kernel Oops Tracking Daemon,,:/usr/sbin/nologin
36 |saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
  
```

- 6. Find out the number of line in password_backup containing "/bin/false".

```
nitin@ubuntu:/etc$ grep -c "/bin/false" passwd_backup
6
nitin@ubuntu:/etc$
```

7. Get the first 5 lines of a file “password_backup” and Redirect the output of the above commands into file “output”.

```
nitin@ubuntu:/etc$ head -5 passwd_backup
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
nitin@ubuntu:/etc$ sudo su
```

8. Create a "test" user, create its password and find out its uid and gid.

```
nitin@ubuntu:/$ sudo useradd test
nitin@ubuntu:/$ id test
uid=1001(test) gid=1001(test) groups=1001(test)
nitin@ubuntu:/$
nitin@ubuntu:/$
```

9. Change the timestamp of emptyFile1, emptyFile2 which are exist in dir2

```
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$ touch -d "2 hour ago" emptyFile1.txt
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$ touch -d "2 hour ago" emptyFile2.txt
nitin@ubuntu:~/Desktop/exercise/dir1/dir2$
```

11. Create alias with your name so that it creates a file as "/tmp/aliastesting"

```

nitin@ubuntu:/etc$ alias
alias alert='notify-send --urgency=low -i "${ $? = 0 } && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^\s*[0-9]\+\s*//;s/[:&]\s*alert$//'\`)'"'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias ls='ls -CF'
alias la='ls -A'
alias ll='ls -alF'
alias ls='ls --color=auto'
nitin@ubuntu:/etc$ ll
total 1128
drwxr-xr-x 130 root root 12288 Sep  7 09:51 ./
drwxr-xr-x  20 root root  4096 Sep  7 08:27 ../
drwxr-xr-x  3 root root  4096 Aug 19 03:40 acpi/
-rw-r--r--  1 root root 3028 Aug 19 03:29 adduser.conf
drwxr-xr-x  3 root root  4096 Aug 19 03:32 alsa/
drwxr-xr-x  2 root root  4096 Sep  7 08:35 alternatives/
-rw-r--r--  1 root root  401 Jul 16 2019 anacrontab
-rw-r--r--  1 root root  423 Oct  1 2017 apg.conf
drwxr-xr-x  5 root root  4096 Aug 19 03:33 apt/
drwxr-xr-x  3 root root  4096 Aug 19 03:40 apparmor/
drwxr-xr-x  6 root root  4096 Sep  7 08:37 apparmor.d/
drwxr-xr-x  4 root root  4096 Aug 19 03:41 appport/
-rw-r--r--  1 root root  769 Jan 18 2020 appstream.conf
drwxr-xr-x  7 root root  4096 Sep  7 08:49 apt/
drwxr-xr-x  3 root root  4096 Aug 19 03:41 avahi/
-rw-r--r--  1 root root 2319 Feb 25 2020 bash.bashrc
-rw-r--r--  1 root root  45 Jan 25 2020 bash_completion
drwxr-xr-x  2 root root  4096 Aug 19 03:41 bash_completion.d/
-rw-r--r--  1 root root  367 Apr 14 2020 bindresvport.blacklist
drwxr-xr-x  2 root root  4096 Apr 22 2020 binfmt.d/
drwxr-xr-x  2 root root  4096 Aug 19 03:40 bluetooth/
-rw-r--r--  1 root root  33 Aug 19 03:41 brltty.key
drwxr-xr-x  7 root root  4096 Aug 19 03:39 brltty/
-rw-r--r--  1 root root 20916 Mar  3 2020 brltty.conf
drwxr-xr-x  3 root root  4096 Aug 19 03:29 ca-certificates/
-rw-r--r--  1 root root 6569 Aug 19 03:31 ca-certificates.conf
-rw-r--r--  1 root root 5713 Aug 19 03:30 ca-certificates.conf.dpkg-old
drwxr-xr-x  2 root root  4096 Aug 19 03:40 calendar/
drwxr-xr-x  2 root root  4096 Aug 19 03:40 chatscripts/
drwxr-xr-x  2 root root  4096 Sep  7 08:32 console-setup/
drwxr-xr-x  2 root root  4096 Aug 19 03:40 cracklib/
drwxr-xr-x  2 root root  4096 Sep  7 08:37 cron.d/
drwxr-xr-x  2 root root  4096 Aug 19 03:41 cron.daily/
drwxr-xr-x  2 root root  4096 Aug 19 03:30 cron.hourly/
drwxr-xr-x  2 root root  4096 Aug 19 03:40 cron.monthly/
-rw-r--r--  1 root root 1042 Feb 13 2020 crontab
drwxr-xr-x  2 root root  4096 Aug 19 03:41 cron.weekly/
drwxr-xr-x  5 root root  4096 Sep  7 09:51 cups/

```



```

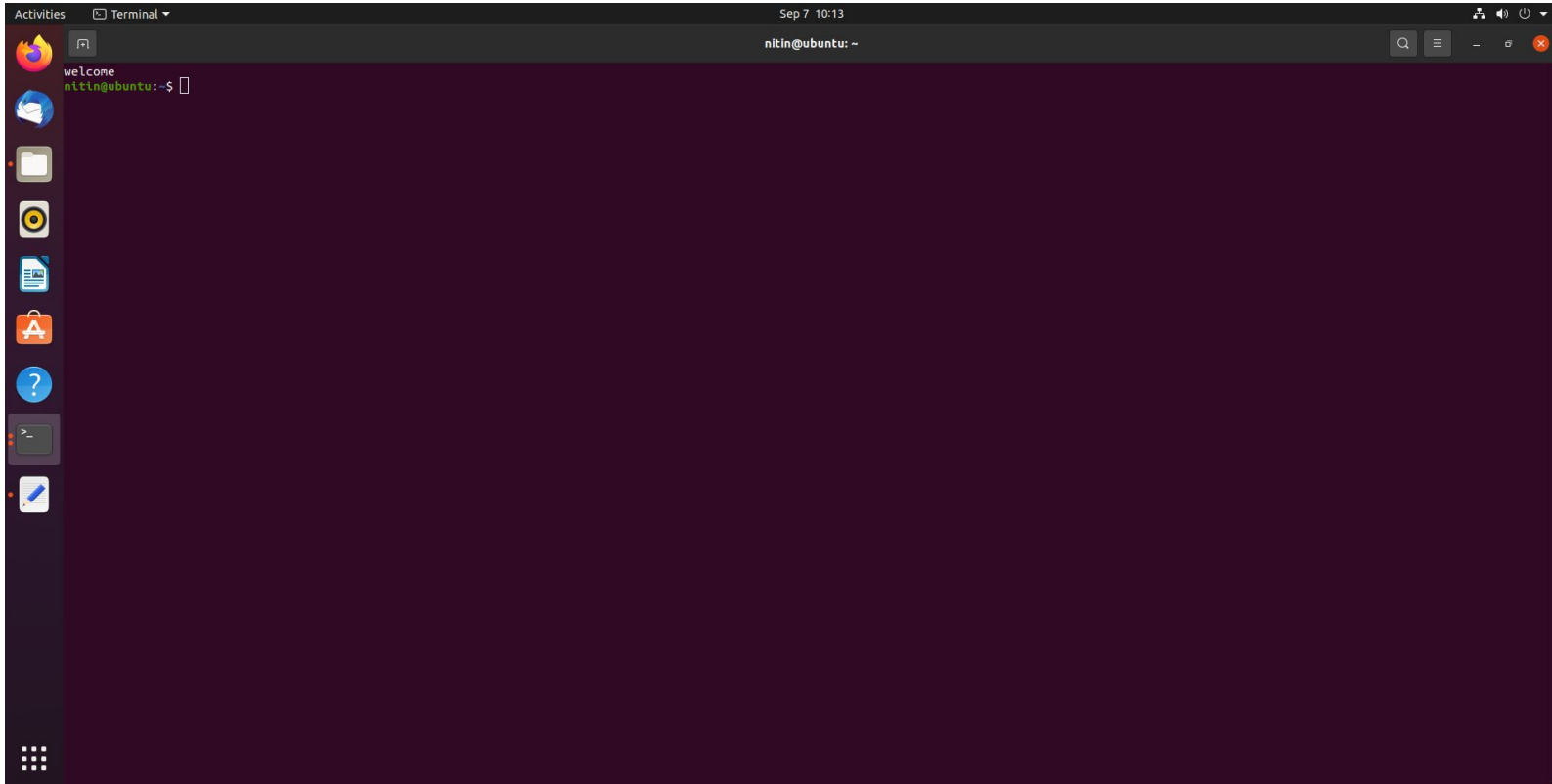
Activities  Terminal  Sep 7 10:48
nitin@ubuntu:/etc

drwxr-xr-x 2 root root 4096 Aug 19 03:40 sensors.d/
-rw-r--r-- 1 root root 14464 Feb 16 2020 services
drwxr-xr-x 3 root root 4096 Aug 19 03:42 sgml/
-rw-r----- 1 root shadow 1415 Sep 7 09:47 shadow
-rw-r----- 1 root shadow 1389 Sep 7 08:48 shadow-
-rw-r--r-- 1 root root 116 Aug 19 03:29 shells
drwxr-xr-x 2 root root 4096 Aug 19 03:30 skel/
drwxr-xr-x 2 root root 4096 Aug 19 03:40 snmp/
drwxr-xr-x 4 root root 4096 Aug 19 03:41 speech-dispatcher/
drwxr-xr-x 3 root root 4096 Aug 19 03:40 ssh/
drwxr-xr-x 4 root root 4096 Aug 19 03:31 ssl/
-rw-r--r-- 1 root root 37 Sep 7 09:47 subgid
-rw-r--r-- 1 root root 19 Sep 7 08:32 subgid-
-rw-r--r-- 1 root root 37 Sep 7 09:47 subuid
-rw-r--r-- 1 root root 19 Sep 7 08:32 subuid-
-r--r----- 1 root root 755 Feb 3 2020 sudoers
drwxr-xr-x 2 root root 4096 Sep 7 08:37 sudoers.d/
-rw-r--r-- 1 root root 2351 Feb 13 2020 sysctl.conf
drwxr-xr-x 2 root root 4096 Aug 19 03:31 sysctl.d/
drwxr-xr-x 5 root root 4096 Aug 19 03:31 systemd/
drwxr-xr-x 2 root root 4096 Aug 19 03:29 terminfo/
drwxr-xr-x 2 root root 4096 Aug 19 03:40 thermald/
drwxr-xr-x 2 root root 4096 Aug 19 03:42 thunderbird/
-rw-r--r-- 1 root root 20 Sep 7 08:32 timezone
drwxr-xr-x 2 root root 4096 Apr 22 2020 tmpfiles.d/
drwxr-xr-x 2 root root 4096 Aug 19 03:31 ubuntu-advantage/
-rw-r--r-- 1 root root 1260 Dec 14 2018 ucf.conf
drwxr-xr-x 4 root root 4096 Aug 19 03:31 udev/
drwxr-xr-x 2 root root 4096 Aug 19 03:41 udisks2/
drwxr-xr-x 3 root root 4096 Aug 19 03:40 ufw/
drwxr-xr-x 3 root root 4096 Aug 19 03:41 update-manager/
drwxr-xr-x 2 root root 4096 Aug 19 03:41 update-motd.d/
drwxr-xr-x 2 root root 4096 Aug 5 07:01 update-notifier/
drwxr-xr-x 2 root root 4096 Aug 19 03:40 UPower/
-rw-r--r-- 1 root root 1523 Feb 9 2020 usb_modeswitch.conf
drwxr-xr-x 2 root root 4096 Feb 24 2020 usb_modeswitch.d/
drwxr-xr-x 2 root root 4096 Aug 19 03:30 vin/
drwxr-xr-x 4 root root 4096 Sep 7 08:50 vmware-tools/
lrwxrwxrwx 1 root root 23 Sep 7 08:11 vtrgb -> /etc/alternatives/vtrgb
drwxr-xr-x 5 root root 4096 Aug 19 03:33 vulkan/
-rw-r--r-- 1 root root 4942 Jul 24 2019 wgetrc
drwxr-xr-x 2 root root 4096 Aug 19 03:41 wpa_supplicant/
drwxr-xr-x 11 root root 4096 Aug 19 03:42 X11/
-rw-r--r-- 1 root root 642 Sep 23 2019 xattr.conf
drwxr-xr-x 6 root root 4096 Aug 19 03:35 xdg/
drwxr-xr-x 2 root root 4096 Aug 19 03:42 xml/
-rw-r--r-- 1 root root 477 Oct 7 2019 zsh_command_not_found

nitin@ubuntu:/etc$ alias shortName="/tmp/alltesting"
nitin@ubuntu:/etc$

```

12. Edit ~/.bashrc file such that when you change to "test" user it should clear the screen and print "Welcome"



13. Install “zip” package.

```
nitin@ubuntu:~/Desktop$ sudo apt-get install zip
[sudo] password for nitin:
Reading package lists... Done
Building dependency tree
Reading state information... Done
zip is already the newest version (3.0-11build1).
zip set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 23 not upgraded.
nitin@ubuntu:~/Desktop$
```

14. Compress "output" and "password_backup" files into a tar ball. List the files present inside the tar created.

```
nitin@ubuntu:/etc$ sudo tar -cvf file.tar passwd_backup output.txt
[sudo] password for nitin:
passwd_backup
output.txt
nitin@ubuntu:/etc$ ls
acpi                  chatscripts          file.tar             hostid
adduser.conf         console-setup        firefox              hostname
alsa                 cracklib             fonts                hosts
alternatives         cron.d               fprintd.conf        hosts.allow
anacrontab           cron.daily           fstab                hosts.deny
```

15.scp this file to test user

```
nitin@ubuntu:/etc$ sudo scp output.txt test@ubuntu  
[sudo] password for nitin:  
nitin@ubuntu:/etc$
```

- 16. Unzip this tar file by logging into the remote server

```
nitin@ubuntu:/etc$ sudo tar -xvf file.tar
[sudo] password for nitin:
passwd_backup
output.txt
nitin@ubuntu:/etc$
```


17. Download any image from web and move to desktop

```
nitin@ubuntu:/etc$ mv logo-large.png /Desktop
mv: cannot move 'logo-large.png' to '/Desktop': Permission denied
nitin@ubuntu:/etc$ sudo mv logo-large.png /Desktop
nitin@ubuntu:/etc$ sudo wget https://static1.tothenew.com/blog/wp-content/themes/ttn/images/1
--2021-09-07 10:42:44-- https://static1.tothenew.com/blog/wp-content/themes/ttn/images/1
Resolving static1.tothenew.com (static1.tothenew.com)... 13.35.129.89, 13.35.129.75, 13.3
Connecting to static1.tothenew.com (static1.tothenew.com)|13.35.129.89|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 8516 (8.3K) [image/png]
Saving to: 'logo-large.png'

logo-large.png                               100%[=====
2021-09-07 10:42:45 (215 MB/s) - 'logo-large.png' saved [8516/8516]

nitin@ubuntu:/etc$ sudo mv logo-large.png /Desktop
nitin@ubuntu:/etc$
nitin@ubuntu:/etc$
nitin@ubuntu:/etc$
nitin@ubuntu:/etc$
nitin@ubuntu:/etc$
```

18.How to get help of commands usages.

```
hltin@ubuntu:/etc$ cat --help
Usage: cat [OPTION]... [FILE]...
Concatenate FILE(s) to standard output.

With no FILE, or when FILE is -, read standard input.

  -A, --show-all           equivalent to -vET
  -b, --number-nonblank     number nonempty output lines, overrides -n
  -e                       equivalent to -vE
  -E, --show-ends          display $ at end of each line
  -n, --number             number all output lines
  -s, --squeeze-blank      suppress repeated empty output lines
  -t                       equivalent to -vT
  -T, --show-tabs          display TAB characters as ^I
  -u                       (ignored)
  -v, --show-nonprinting   use ^ and M- notation, except for LFD and TAB
  --help                  display this help and exit
  --version               output version information and exit

Examples:
  cat f - g  Output f's contents, then standard input, then g's contents.
  cat       Copy standard input to standard output.

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation at: <https://www.gnu.org/software/coreutils/cat>
or available locally via: info '(coreutils) cat invocation'
```

```

Activities  Terminal  Sep 7 10:38
nitin@ubuntu: /etc
User Commands
CAT(1)

NAME
    cat - concatenate files and print on the standard output

SYNOPSIS
    cat [OPTION]... [FILE]...

DESCRIPTION
    Concatenate FILE(s) to standard output.
    With no FILE, or when FILE is -, read standard input.

    -A, --show-all
        equivalent to -vET

    -b, --number-nonblank
        number nonempty output lines, overrides -n

    -e
        equivalent to -vE

    -E, --show-ends
        display $ at end of each line

    -n, --number
        number all output lines

    -s, --squeeze-blank
        suppress repeated empty output lines

    -t
        equivalent to -vT

    -T, --show-tabs
        display TAB characters as ^I

    -u
        (ignored)

    -v, --show-nonprinting
        use ^ and M- notation, except for LFD and TAB

    --help
        display this help and exit

    --version
        output version information and exit

EXAMPLES
    cat f - g
        Output f's contents, then standard input, then g's contents.
    Manual page cat(1) line 1 (press h for help or q to quit)
  
```

19. Create a symlink of /etc/services into /tmp/ports-info

```
nitin@ubuntu:/etc$ ln -s /etc/services /tmp/ports-info
nitin@ubuntu:/etc$ ls -F /tmp/ports-info
/tmp/ports-info@
nitin@ubuntu:/etc$
```

■ You are appointed as a Software/DevOps Engineer in ABC media services. On your first day you need to troubleshoot a problem. There is a command “xyz” somewhere installed in that linux system. But as a new joinee you do not have any idea about where is that Installed. How can you check that?

```
nitin@ubuntu:/etc$  
nitin@ubuntu:/etc$ locate xyz
```