

1-create users called itiusuer1, itiusuer2

```
weam@weam-VirtualBox:~/Desktop$ sudo passwd itiusuer1
[sudo] password for weam:
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
weam@weam-VirtualBox:~/Desktop$ sudo passwd itiusuer2
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully

weam@weam-VirtualBox:~/Desktop$ ls -l /home
total 12
drwxr-x---  2 itiusuer1 itiusuer1 4096 23:37 16 فير itiusuer1
drwxr-x---  2 itiusuer2 itiusuer2 4096 23:37 16 فير itiusuer2
drwxr-x--- 16 weam      weam      4096 23:41 16 فير weam
```

2-create group called os_team

```
passwd: password updated successfully
weam@weam-VirtualBox:~/Desktop$ sudo groupadd os_team
```

3-create directory called os_team_workspace

```
weam@weam-VirtualBox:~/Desktop$ mkdir os_team_workspace
```

4-assign os_team group to the directory

os_team workspace and change mode to setgid (hint use sudo)

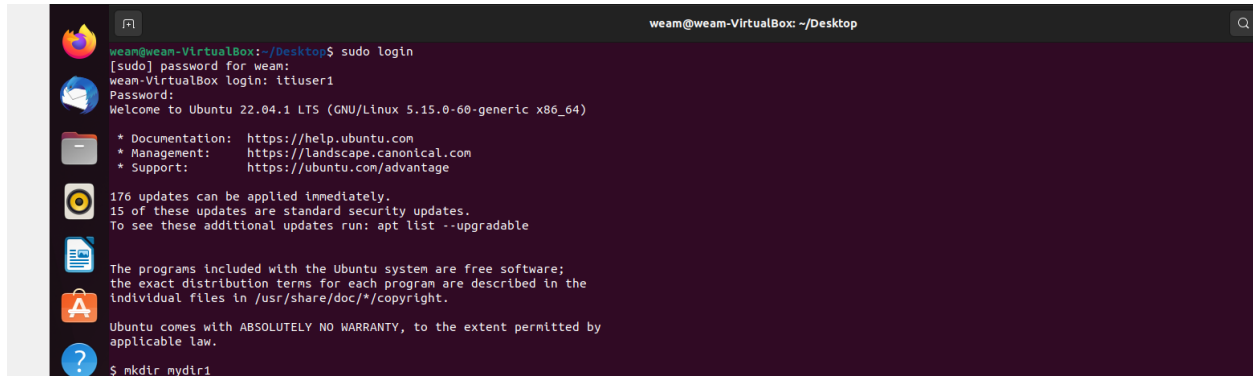
```
weam@weam-VirtualBox:~/Desktop$ sudo chgrp os_team os_team_workspace
weam@weam-VirtualBox:~/Desktop$ ls -ld os_team_workspace
drwxrwxr-x 2 weam os_team 4096 23:51 16 فير os_team_workspace

weam@weam-VirtualBox:~/Desktop$ sudo chmod g+s os_team_workspace
weam@weam-VirtualBox:~/Desktop$ ls -ld os_team_workspace
drwxrwsr-x 2 weam os_team 4096 23:51 16 فير os_team_workspace
```

5-add users itituser1 and itituser2 to os_teamgroup

```
weam@weam-VirtualBox:~/Desktop$ sudo usermod -a -G os_team itiusuer1
weam@weam-VirtualBox:~/Desktop$ sudo usermod -a -G os_team itiusuer2
weam@weam-VirtualBox:~/Desktop$ groups itiusuer1
itiusuer1 : itiusuer1 os_team
weam@weam-VirtualBox:~/Desktop$ groups itiusuer2
itiusuer2 : itiusuer2 os_team
```

6-create directory mydir1 using itiuser1 and mydir2 using itiuser2



A terminal window titled 'weam@weam-VirtualBox: ~/Desktop'. The user 'weam' runs 'sudo login'. The prompt changes to 'weam-VirtualBox login: itiuser1'. The user enters the password. The terminal displays the Ubuntu 22.04.1 LTS welcome message, including links for documentation, management, and support, as well as update information. At the bottom, the user runs '\$ mkdir mydir1'.

```
weam@weam-VirtualBox:~/Desktop$ sudo login
[sudo] password for weam:
weam-VirtualBox login: itiuser1
Password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-60-generic x86_64)

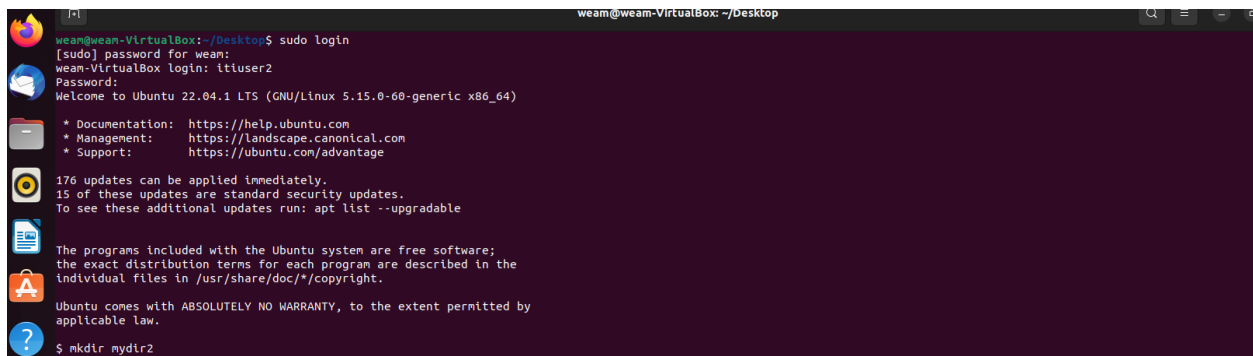
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

176 updates can be applied immediately.
15 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

$ mkdir mydir1
```



A terminal window titled 'weam@weam-VirtualBox: ~/Desktop'. The user 'weam' runs 'sudo login'. The prompt changes to 'weam-VirtualBox login: itiuser2'. The user enters the password. The terminal displays the Ubuntu 22.04.1 LTS welcome message, including links for documentation, management, and support, as well as update information. At the bottom, the user runs '\$ mkdir mydir2'.

```
weam@weam-VirtualBox:~/Desktop$ sudo login
[sudo] password for weam:
weam-VirtualBox login: itiuser2
Password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-60-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

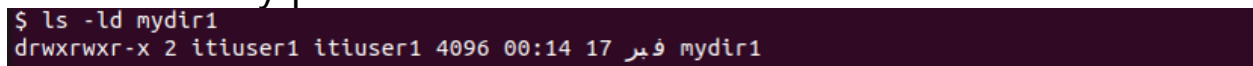
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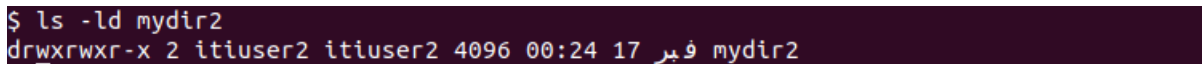
$ mkdir mydir2
```

7-list directory permissions and send screenshot.



A terminal window showing the command '\$ ls -ld mydir1' and its output: 'drwxrwxr-x 2 itiuser1 itiuser1 4096 00:14 17 فير mydir1'.

```
$ ls -ld mydir1
drwxrwxr-x 2 itiuser1 itiuser1 4096 00:14 17 فير mydir1
```



A terminal window showing the command '\$ ls -ld mydir2' and its output: 'drwxrwxr-x 2 itiuser2 itiuser2 4096 00:24 17 فير mydir2'.

```
$ ls -ld mydir2
drwxrwxr-x 2 itiuser2 itiuser2 4096 00:24 17 فير mydir2
```

8- send screenshot of all processes in tree mod

```
weang@wean-VirtualBox: /Desktop$ pstree
systemd─┬─ModemManager─2*[{ModemManager}]
        ┬─NetworkManager─2*[{NetworkManager}]
        ┬─accounts-daemon─2*[{accounts-daemon}]
        ┬─acpid
        ┬─apache2─2*{apache2}─26*[{apache2}]
        ┬─apt.systemd.dal─apt.systemd.dal─unattended-upgr─unattended-upgr++
        │                                     2*[{unattended-+
        ┬─avahi-daemon─avahi-daemon
        ┬─colord─2*[{colord}]
        ┬─cron
        ┬─cups-browsed─2*[{cups-browsed}]
        ┬─cupsd
        ┬─dbus-daemon
        ┬─fwupd─4*[{fwupd}]
        ┬─gdm3─gdm-session-wor─gdm-wayland-ses─gnome-session-b─2*[{gnom+
        │                                     2*[{gdm-wayland-ses}]
        │                                     2*[{gdm-session-wor}]
        │                                     2*[{gdm3}]
        ┬─gnome-keyring-d─3*[{gnome-keyring-d}]
        ┬─2*[{kerneloops}]
        ┬─networkd-dispat
        ┬─packagekitd─2*[{packagekitd}]
        ┬─polkitd─2*[{polkitd}]
        ┬─power-profiles─2*[{power-profiles-}]
        ┬─rsyslogd─3*[{rsyslogd}]
        ┬─rtkit-daemon─2*[{rtkit-daemon}]
        ┬─snapd─8*[{snapd}]
        ┬─switcheroo-cont─2*[{switcheroo-cont}]
        ┬─systemd
        │   ┬─at-spl2-registr─2*[{at-spl2-registr}]
        │   ┬─dbus-daemon
        │   ┬─dconf-service─2*[{dconf-service}]
        │   ┬─evolution-adre─5*[{evolution-adre}]
        │   ┬─evolution-calen─3*[{evolution-calen}]
        │   ┬─evolution-sourc─3*[{evolution-sourc}]
        │   ┬─2*[{gjs}─4*[{gjs}]
        │   ┬─gnome-session-b─at-spl-bus-laun─dbus-daemon
        │   │               │               3*[{at-spl-bus-laun}]
        │   │               ┬─evolution-alarm─5*[{evolution-alarm}]
        │   │               ┬─gsd-disk-utilit─2*[{gsd-disk-utilit}]
        │   │               ┬─update-notifier─3*[{update-notifier}]
        │   │               ┬─3*[{gnome-session-b}]
        │   ┬─gnome-session-c─{gnome-session-c}
        │   ┬─gnome-shell─gjs─2*[{gnome-terminal}─gnome-terminal.─3+
        │   │               │               5*[{gjs}]
        │   │               ┬─8*[{gnome-shell}]
        │   │               ┬─gnome-shell-cal─5*[{gnome-shell-cal}]
        │   │               ┬─gnome-terminal─bash─pstree
        │   │               │               bash─sudo─sudo─login─sh
        │   │               ┬─3*[{gnome-terminal-}]
        │   ┬─goa-daemon─3*[{goa-daemon}]
        │   ┬─gnome-session-c─{gnome-session-c}
        │   ┬─gnome-shell─gjs─2*[{gnome-terminal}─gnome-terminal.─3+
        │   │               │               5*[{gjs}]
        │   │               ┬─8*[{gnome-shell}]
        │   │               ┬─gnome-shell-cal─5*[{gnome-shell-cal}]
        │   │               ┬─gnome-terminal─bash─pstree
        │   │               │               bash─sudo─sudo─login─sh
        │   │               ┬─3*[{gnome-terminal-}]
        │   ┬─goa-daemon─3*[{goa-daemon}]
        │   ┬─goa-identity-se─2*[{goa-identity-se}]
        │   ┬─gsd-a11y-settin─3*[{gsd-a11y-settin}]
        │   ┬─gsd-color─3*[{gsd-color}]
        │   ┬─gsd-datetime─3*[{gsd-datetime}]
        │   ┬─gsd-housekeepin─3*[{gsd-housekeepin}]
        │   ┬─gsd-keyboard─3*[{gsd-keyboard}]
        │   ┬─gsd-media-keys─3*[{gsd-media-keys}]
        │   ┬─gsd-power─4*[{gsd-power}]
        │   ┬─gsd-print-notif─2*[{gsd-print-notif}]
        │   ┬─gsd-printer─2*[{gsd-printer}]
        │   ┬─gsd-rfkill─2*[{gsd-rfkill}]
        │   ┬─gsd-screensaver─2*[{gsd-screensaver}]
        │   ┬─gsd-sharing─3*[{gsd-sharing}]
        │   ┬─gsd-smartcard─3*[{gsd-smartcard}]
        │   ┬─gsd-sound─3*[{gsd-sound}]
        │   ┬─gsd-wacom─3*[{gsd-wacom}]
        │   ┬─gvfs-afc-volume─3*[{gvfs-afc-volume}]
        │   ┬─gvfs-goa-volume─2*[{gvfs-goa-volume}]
        │   ┬─gvfs-gphoto2-vo─2*[{gvfs-gphoto2-vo}]
        │   ┬─gvfs-mtp-volume─2*[{gvfs-mtp-volume}]
        │   ┬─gvfs-udisks2-vo─3*[{gvfs-udisks2-vo}]
        │   ┬─gvfsd─gvfsd-trash─2*[{gvfsd-trash}]
        │   │               2*[{gvfsd}]
        │   ┬─gvfsd-fuse─5*[{gvfsd-fuse}]
        │   ┬─gvfsd-metadata─2*[{gvfsd-metadata}]
        │   ┬─ibus-portal─2*[{ibus-portal}]
        │   ┬─pipewire─{pipewire}
        │   ┬─pipewire-media─{pipewire-media-}
        │   ┬─pulseaudio─3*[{pulseaudio}]
        │   ┬─sh─ibus-daemon─ibus-engine-sin─2*[{ibus-engine-sin}]
        │   │               │               ┬─ibus-extension─3*[{ibus-extension-}]
        │   │               │               ┬─ibus-menconf─2*[{ibus-menconf}]
        │   │               ┬─2*[{ibus-daemon}]
        │   ┬─snap-store─4*[{snap-store}]
        │   ┬─snapd-desktop-l─snapd-desktop-l─3*[{snapd-desktop-l}]
        │   ┬─tracker-miner-f─5*[{tracker-miner-f}]
        │   ┬─xdg-desktop-por─5*[{xdg-desktop-por}]
        │   ┬─2*[{xdg-desktop-por}─3*[{xdg-desktop-por}]
        │   ┬─xdg-document-po─fusermount3
        │   │               5*[{xdg-document-po}]
        │   ┬─xdg-permission─2*[{xdg-permission-}]
        ┬─systemd-journal
        ┬─systemd-logind
```

```

gvfsd-----gvfsd-trash-----2*[{gvfsd-trash}]
          |
          | 2*[{gvfsd}]
gvfsd-fuse-----5*[{gvfsd-fuse}]
gvfsd-metadata-----2*[{gvfsd-metadata}]
ibus-portal-----2*[{ibus-portal}]
pipewire-----{pipewire}
pipewire-media-----{pipewire-media-}
pulseaudio-----3*[{pulseaudio}]
sh-----ibus-daemon-----ibus-engine-sim-----2*[{ibus-engine-sim}]
          |
          | ibus-extension-----3*[{ibus-extension-}]
          |
          | ibus-memconf-----2*[{ibus-memconf}]
          |
          | 2*[{ibus-daemon}]
snap-store-----4*[{snap-store}]
snapd-desktop-i-----snapd-desktop-i-----3*[{snapd-desktop-i}]
tracker-miner-f-----5*[{tracker-miner-f}]
xdg-desktop-por-----5*[{xdg-desktop-por}]
2*xdg-desktop-por-----3*[{xdg-desktop-por}]]
xdg-document-po-----fusermount3
          |
          | 5*[{xdg-document-po}]
xdg-permission-----2*[{xdg-permission-}]

systemd-journal
systemd-logind
systemd-oomd
systemd-resolve
systemd-timesyn-----{systemd-timesyn}
systemd-udev
udisksd-----4*[{udisksd}]
unattended-upgr-----{unattended-upgr}
upowerd-----2*[{upowerd}]
wpa_supplicant

```

9-execute command `tail -f /var/log/syslog`

```

systemd-timesyn-----{systemd-timesyn}
systemd-udev
udisksd-----4*[{udisksd}]
unattended-upgr-----{unattended-upgr}
upowerd-----2*[{upowerd}]
wpa_supplicant

wean@wean-VirtualBox:~/Desktop$ tail -f /var/log/syslog
Feb 17 00:23:38 wean-VirtualBox systemd[1412]: vte-spawn-152ed112-4b8f-4207-93a5-9308dc0d27ba.scope: Consumed 1.015s CPU time.
Feb 17 00:23:42 wean-VirtualBox systemd[1412]: Started VTE child process 3859 launched by gnome-terminal-server process 3510.
Feb 17 00:27:46 wean-VirtualBox systemd[1]: Starting Daily apt upgrade and clean activities...
Feb 17 00:29:47 wean-VirtualBox update-notifier.desktop[4508]: /var/cache/apt/archives/locks
Feb 17 00:30:37 wean-VirtualBox systemd[1]: Starting Ubuntu Advantage Timer for running repeated jobs...
Feb 17 00:30:38 wean-VirtualBox systemd[1]: ua-timer.service: Deactivated successfully.
Feb 17 00:30:38 wean-VirtualBox systemd[1]: Finished Ubuntu Advantage Timer for running repeated jobs.
Feb 17 00:32:17 wean-VirtualBox systemd[1]: apt-daily-upgrade.service: Deactivated successfully.
Feb 17 00:32:17 wean-VirtualBox systemd[1]: Finished Daily apt upgrade and clean activities.
Feb 17 00:32:17 wean-VirtualBox systemd[1]: apt-daily-upgrade.service: Consumed 2min 20.226s CPU time.

```

10- find the process id PID of tail process then kill it using `kill` command

```

[1]+  Stopped                  tail -f /var/log/syslog
wean@wean-VirtualBox:~/Desktop$ ps
  PID TTY          TIME CMD
 3528 pts/0    00:00:00 bash
 13934 pts/0    00:00:00 tail
 13936 pts/0    00:00:00 ps
wean@wean-VirtualBox:~/Desktop$ kill -9 13934
wean@wean-VirtualBox:~/Desktop$ ps
  PID TTY          TIME CMD
 3528 pts/0    00:00:00 bash
 13937 pts/0    00:00:00 ps
[1]+  Killed                  tail -f /var/log/syslog

```