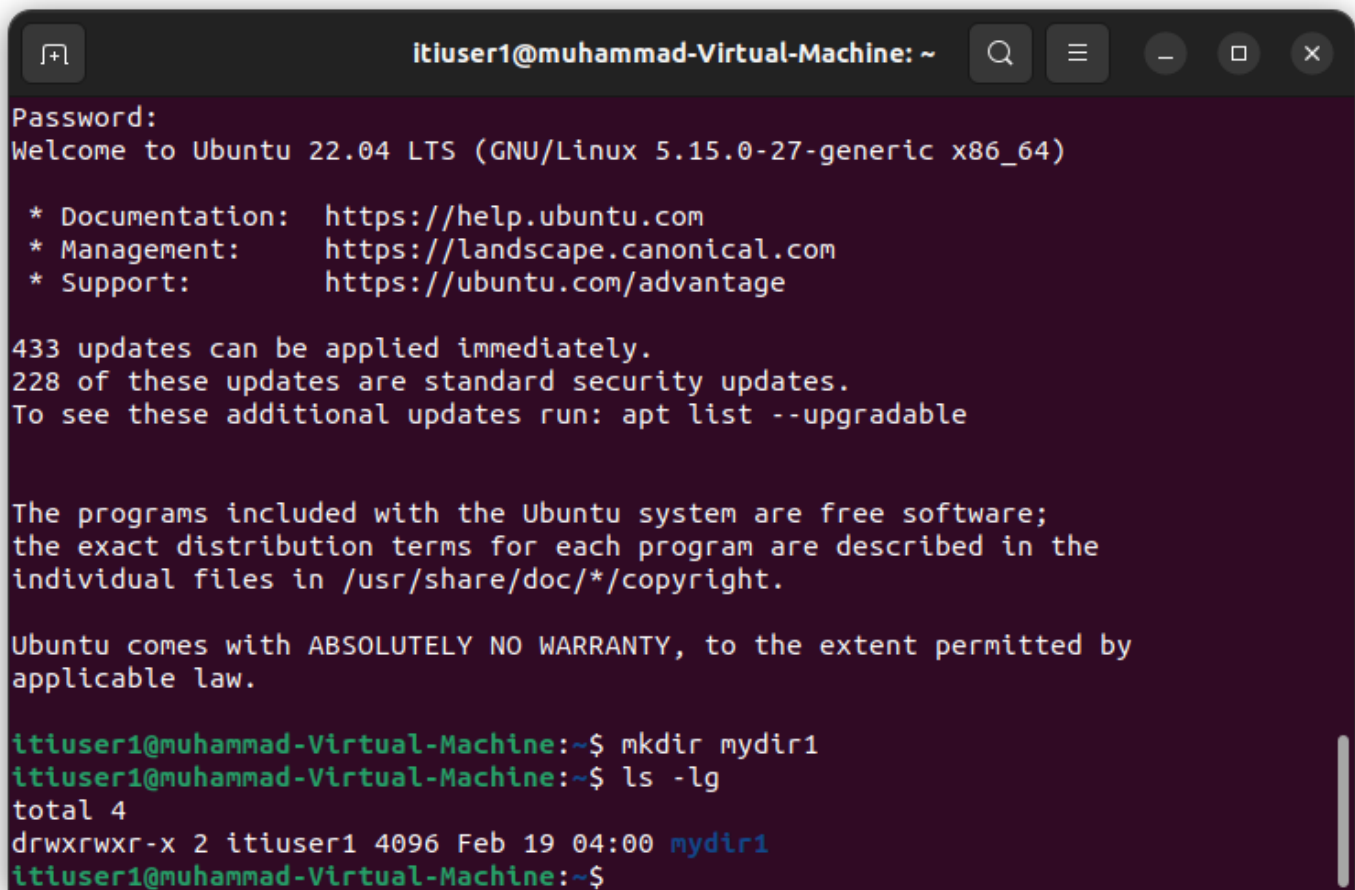


- create users called `itiuser1`, `itiuser2`
`sudo useradd itiuser1`
`sudo useradd itiuser2`
- create group called `os_team`
`sudo groupadd os_team`
- create directory called `os_team_workspace`
`mkdir os_team_workspace`
- assign `os_team` group to the directory `os_team_workspace` and change mode to `setgid` (hint use `sudo`)
`sudo chgrp os_team os_team_workspace`
`sudo chmod g+s os_team_workspace`
- add users `itituser1` and `itituser2` to `os_team` group
`sudo usermod -G os_team itiuser1`
`sudo usermod -G os_team itiuser2`

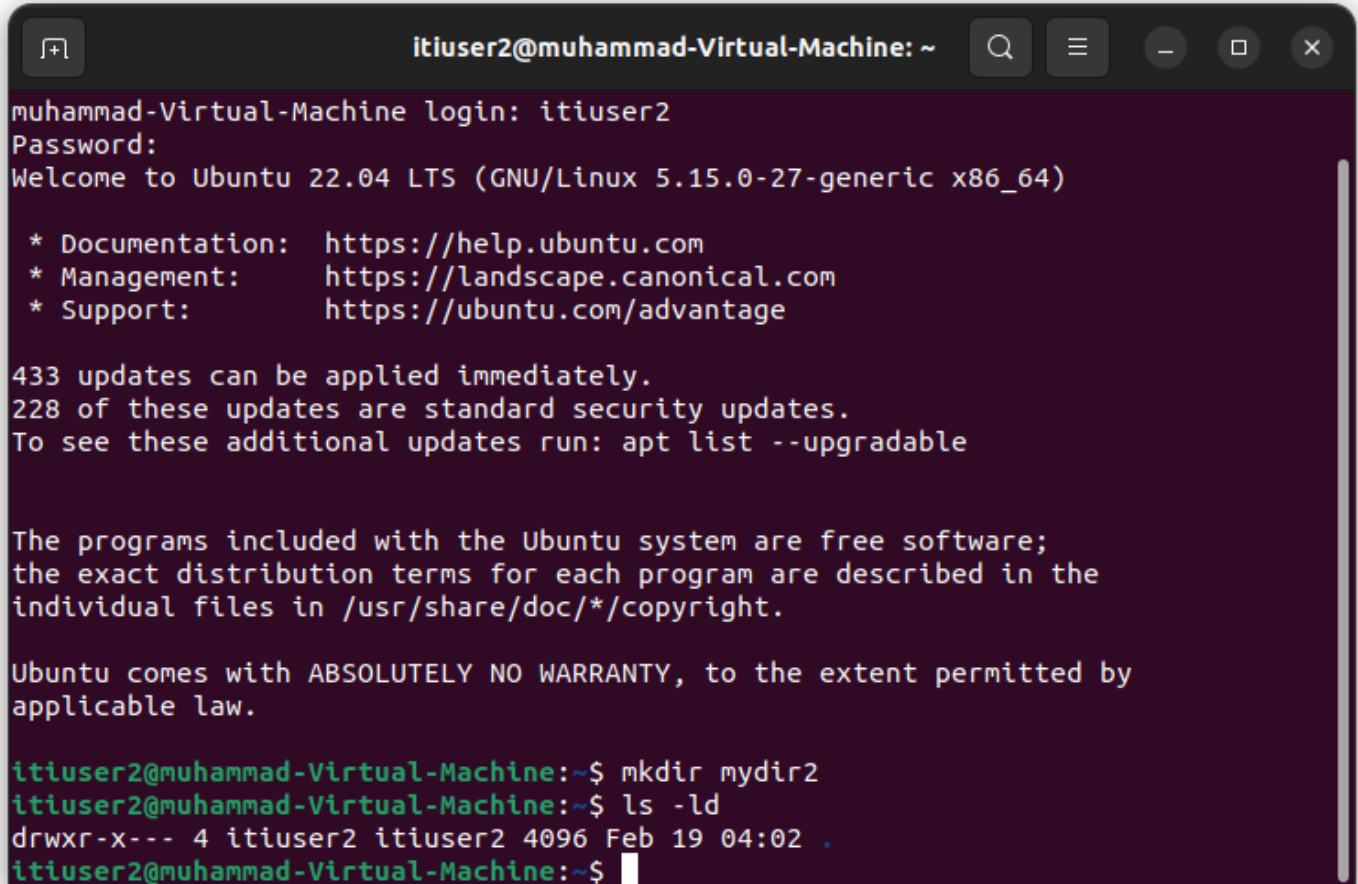
- create directory `mydir1` using `itiuser1` and `mydir2` using `itiuser2`
- list directory permissions and send screenshot.

```
sudo login  
itiuser1  
mkdir mydir1  
ls -lg
```

A terminal window titled 'itiuser1@muhammad-Virtual-Machine: ~' with standard Ubuntu window controls. The terminal shows the login process for 'itiuser1' on 'Ubuntu 22.04 LTS'. It displays system information, update notifications (433 updates available), and legal disclaimers. The user then executes 'mkdir mydir1' and 'ls -lg', resulting in the output: 'total 4 drwxrwxr-x 2 itiuser1 4096 Feb 19 04:00 mydir1'.

```
itiuser1@muhammad-Virtual-Machine: ~  
Password:  
Welcome to Ubuntu 22.04 LTS (GNU/Linux 5.15.0-27-generic x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
433 updates can be applied immediately.  
228 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.  
  
itiuser1@muhammad-Virtual-Machine:~$ mkdir mydir1  
itiuser1@muhammad-Virtual-Machine:~$ ls -lg  
total 4  
drwxrwxr-x 2 itiuser1 4096 Feb 19 04:00 mydir1  
itiuser1@muhammad-Virtual-Machine:~$
```

```
sudo login
itiuser2
mkdir mydir2
ls -ld
```

A terminal window titled 'itiuser2@muhammad-Virtual-Machine: ~' with standard Ubuntu window controls. The terminal shows the login process for 'itiuser2' on 'muhammad-Virtual-Machine'. It displays the Ubuntu 22.04 LTS welcome message, update information (433 updates available), and system information. The user then runs 'mkdir mydir2' and 'ls -ld', resulting in the output: 'drwxr-x--- 4 itiuser2 itiuser2 4096 Feb 19 04:02 .'.

- send screenshot of all processes in tree mod

pstree

```
muhammad@muhammad-Virtual-Machine: ~$ pstree
systemd--ModemManager--2*[{ModemManager}]
        |
        |--NetworkManager--2*[{NetworkManager}]
        |--accounts-daemon--2*[{accounts-daemon}]
        |--acpid
        |--apt.systemd.dai--apt.systemd.dai--unattended-upgr--2*[http]
        |                                                    |
        |                                                    2*[{unattended-+
        |
        |--2*[at-spi-bus-laun--dbus-daemon]
        |                               |
        |                               3*[{at-spi-bus-laun}]]
        |--at-spi2-registr--2*[{at-spi2-registr}]
        |--avahi-daemon--avahi-daemon
        |--colord--2*[{colord}]
        |--cron
        |--cups-browsed--2*[{cups-browsed}]
        |--cupsd
        |--2*[dbus-daemon]
        |--dbus-launch
        |--gdm3--gdm-session-wor--gdm-wayland-ses--dbus-run-sessio--dbus-dae+
        |               |               |               |               |
        |               |               |               |               gnome-se+
        |               |               |               |               2*[{gdm-wayland-ses}]
        |               |               |               |               |
        |               |               |               |               2*[{gdm-session-wor}]
        |               |               |               |
        |               |               |               2*[{gdm3}]
        |               |               |
        |               |               2*[{gjs}--4*[{gjs}]]
        |               |
        |               gsd-printer--2*[{gsd-printer}]
```

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

```
muhammad@muhammad-Virtual-Machine: ~  
muhammad@muhammad-Virtual-Machine:~$ tail -f /var/log/syslog  
Feb 19 04:07:43 muhammad-Virtual-Machine kernel: [ 990.096395] audit: type=1400  
audit(1676797663.455:98): apparmor="STATUS" operation="profile_replace" profile  
="unconfined" name="snap.firefox.firefox" pid=3909 comm="apparmor_parser"  
Feb 19 04:07:43 muhammad-Virtual-Machine kernel: [ 990.538453] audit: type=1400  
audit(1676797663.895:99): apparmor="STATUS" operation="profile_replace" profile  
="unconfined" name="snap.firefox.hook.configure" pid=3910 comm="apparmor_parser"  
Feb 19 04:07:45 muhammad-Virtual-Machine kernel: [ 992.042039] audit: type=1400  
audit(1676797665.399:100): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="snap-update-ns.snap-store" pid=3911 comm="apparmor_parser"  
Feb 19 04:07:45 muhammad-Virtual-Machine kernel: [ 992.599758] audit: type=1400  
audit(1676797665.955:101): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="snap.snap-store.hook.configure" pid=3912 comm="apparmor_parser"  
Feb 19 04:07:47 muhammad-Virtual-Machine kernel: [ 993.853736] audit: type=1400  
audit(1676797667.211:102): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="snap.snap-store.snap-store" pid=3913 comm="apparmor_parser"  
Feb 19 04:07:48 muhammad-Virtual-Machine kernel: [ 995.203741] audit: type=1400  
audit(1676797668.559:103): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="snap.snap-store.ubuntu-software" pid=3917 comm="apparmor_parser"  
Feb 19 04:07:49 muhammad-Virtual-Machine kernel: [ 996.557752] audit: type=1400  
audit(1676797669.915:104): apparmor="STATUS" operation="profile_replace" profile="unconfined" name="snap.snap-store.ubuntu-software" pid=3917 comm="apparmor_parser"
```

- find the process id PID of tail process then kill it using `kill` command
`pidof tail`
`kill 8864`

```
muhammad@muhammad-Virtual-Machine: ~  
muhammad 4208 0.0 0.1 11136 5028 pts/0 Ss 04:08 0:00 bash  
root 4362 0.0 0.0 0 0 ? I 04:09 0:00 [kworker/u480  
root 4366 0.0 0.0 0 0 ? I 04:09 0:00 [kworker/u480  
root 4539 0.0 0.0 0 0 ? I 04:11 0:00 [kworker/0:0-  
muhammad 4577 15.2 11.9 3279480 349736 ? SL 04:14 0:27 /snap/firefox  
muhammad 4755 0.0 1.2 222972 36128 ? SL 04:14 0:00 /snap/firefox  
muhammad 4827 0.3 3.0 2433528 88628 ? SL 04:14 0:00 /snap/firefox  
muhammad 4851 0.6 3.7 2447316 108108 ? SL 04:14 0:00 /snap/firefox  
muhammad 4879 0.0 0.8 570832 24536 ? SL 04:14 0:00 /usr/bin/snap  
root 5011 0.0 0.0 0 0 ? I 04:14 0:00 [kworker/u480  
muhammad 5121 0.0 2.1 2401412 63720 ? SL 04:14 0:00 /snap/firefox  
muhammad 5263 0.0 2.1 2401976 62196 ? SL 04:14 0:00 /snap/firefox  
muhammad 5280 0.0 2.1 2401968 61764 ? SL 04:14 0:00 /snap/firefox  
muhammad 8864 0.0 0.0 8400 1060 pts/0 S+ 04:16 0:00 tail -f /var/  
root 9109 0.0 0.0 0 0 ? I 04:16 0:00 [kworker/u480  
muhammad 9129 0.1 0.1 11004 5144 pts/1 Ss 04:16 0:00 bash  
root 9151 0.3 0.0 0 0 ? I 04:16 0:00 [kworker/0:2-  
root 9210 12.0 3.9 347324 116248 ? S 04:17 0:00 /usr/bin/pyth  
root 9229 12.0 1.5 50648 44268 pts/2 Ds+ 04:17 0:00 /usr/bin/dpkg  
muhammad 9239 0.0 0.1 12984 3900 pts/1 R+ 04:17 0:00 ps -aux  
muhammad@muhammad-Virtual-Machine:~$ pidof tail  
8864  
muhammad@muhammad-Virtual-Machine:~$ kill 8864  
muhammad@muhammad-Virtual-Machine:~$
```