Lab3 Objectives:

1. create users called itiuser1, itiuser2

- command:

  - sudo useradd -m itiuser1

  - sudo useradd -m itiuser2

  - sudo passwd itiuser1

  - sudo passwd itiuser1

- screen shot:

```
mariam@mariam-VirtualBox:~$ sudo useradd -m itiuser1
[sudo] password for mariam:
mariam@mariam-VirtualBox:~$ sudo useradd -m itiuser2
```

```
mariam@mariam-VirtualBox:~$ cd ..
mariam@mariam-VirtualBox:/home$ ls
itiuser1  itiuser2  mariam
```

```
mariam@mariam-VirtualBox:~/Desktop$ sudo passwd itiuser1
New password:
Retype new password:
passwd: password updated successfully
mariam@mariam-VirtualBox:~/Desktop$ sudo passwd itiuser2
New password:
Retype new password:
passwd: password updated successfully
```

2. create group called os_team

- commands:

  - sudo groupadd os_team

- screen shot:

```
mariam@mariam-VirtualBox:/home$ sudo groupadd os_team
```

3. create directory called os_team_workspace

- commands:

  - mkdir os_team_workspace

- screen shot:

```
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ ls
os_team_workspace
```

4. assign os_team group to the directory os_team_workspaceand change mode to setgid (hint use sudo)

- commands:

  - sudo chgrp os_team ~/Documents/sys-admin-labs/lab3/os_team_workspace

  - sudo chmod g+s os_team_workspace

- screen shot:

```
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ sudo chgrp os_team ~/Documents/sys-admin-labs/lab3
/os_team_workspace
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ ls -l
total 4
drwxrwxr-x 2 mariam os_team 4096 01:03 17 فبر os_team_workspace
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ sudo chmod g+s os_team_workspace
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ ls -l
total 4
drwxrwsr-x 2 mariam os_team 4096 01:03 17 فبر os_team_workspace
```

5. add users `itituser1 and itituser2` to `os_team`group

- commands:

  - sudo usermod -a -G os_team itiuser1

  - sudo usermod -a -G os_team itiuser2

- screen shot:

```
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ sudo usermod -a -G os_team itiuser1
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ groups itiuser1
itiuser1 : itiuser1 os_team
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ sudo usermod -a -G os_team itiuser2
mariam@mariam-VirtualBox:~/Documents/sys-admin-labs/lab3$ groups itiuser2
itiuser2 : itiuser2 os_team
```

6. create directory mydir1 using itiuser1 and mydir2 using itiuser2

- commands:

  - user1:

    - sudo login

    - mkdir mydir1

    - ls -l

- screen shot:

```
mariam@mariam-VirtualBox:~/Desktop$ sudo login
[sudo] password for mariam:
mariam-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

18 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Last login: 00:57:20 17 فبر ج EET 2023 on pts/2
$ pwd
/home/itiuser1
$ mkdir mydir1
$ ls -l
total 4
drwxrwxr-x 2 itiuser1 itiuser1 4096 15:04 20 فبر mydir1
$ ls -l
$ ls -lah
total 28K
drwxr-x--- 4 itiuser1 itiuser1 4.0K 15:04 20 فبر .
drwxr-xr-x 5 root     root     4.0K 00:46 17 فبر ..
-rw-r--r-- 1 itiuser1 itiuser1  220 2022  6 ليب .bash_logout
-rw-r--r-- 1 itiuser1 itiuser1 3.7K 2022  6 ليب .bashrc
drwx------ 2 itiuser1 itiuser1 4.0K 00:57 17 فبر .cache
drwxrwxr-x 2 itiuser1 itiuser1 4.0K 15:04 20 فبر mydir1
-rw-r--r-- 1 itiuser1 itiuser1  807 2022  6 ليب .profile
$
```

- user2:
    - sudo login
    - mkdir mydir2
    - ls -l

- screen shot:

```
[sudo] password for mariam:
mariam-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

18 updates can be applied immediately.
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 mydir2
$ ls -l
total 4
drwxrwxr-x 2 itiuser2 itiuser2 4096 15:11 20 فبر mydir2
$ ls -lah
total 28K
drwxr-x--- 4 itiuser2 itiuser2 4.0K 15:11 20 فبر .
drwxr-xr-x 5 root     root     4.0K 00:46 17 فبر ..
-rw-r--r-- 1 itiuser2 itiuser2  220 2022  6 ليب .bash_logout
-rw-r--r-- 1 itiuser2 itiuser2 3.7K 2022  6 ليب .bashrc
drwx------ 2 itiuser2 itiuser2 4.0K 15:11 20 فبر .cache
drwxrwxr-x 2 itiuser2 itiuser2 4.0K 15:11 20 فبر mydir2
-rw-r--r-- 1 itiuser2 itiuser2  807 2022  6 ليب .profile
```

7. send screenshot of all processes in tree mod

- commands:
  - pstree

- screen shot:

```
mariam@mariam-VirtualBox:~/Desktop$ pstree                                        ├─goa-identity-se──2*[{goa-identity-se}]
systemd─┬─ModemManager───2*[{ModemManager}]                                       ├─gsd-a11y-settin───3*[{gsd-a11y-settin}]
        ├─NetworkManager───2*[{NetworkManager}]                                   ├─gsd-color───3*[{gsd-color}]
        ├─VBoxDRMClient───4*[{VBoxDRMClient}]                                      ├─gsd-datetime───3*[{gsd-datetime}]
        ├─VBoxService───8*[{VBoxService}]                                          ├─gsd-housekeepin───3*[{gsd-housekeepin}]
        ├─accounts-daemon───2*[{accounts-daemon}]                                 ├─gsd-keyboard───3*[{gsd-keyboard}]
        ├─acpid                                                                   ├─gsd-media-keys───3*[{gsd-media-keys}]
        ├─apache2───2*[apache2───26*[{apache2}]]                                  ├─gsd-power───3*[{gsd-power}]
        ├─avahi-daemon───avahi-daemon                                             ├─gsd-print-notif───2*[{gsd-print-notif}]
        ├─colord───2*[{colord}]                                                   ├─gsd-printer───2*[{gsd-printer}]
        ├─cron                                                                    ├─gsd-rfkill───2*[{gsd-rfkill}]
        ├─cups-browsed───2*[{cups-browsed}]                                       ├─gsd-screensaver───2*[{gsd-screensaver}]
        ├─cupsd                                                                   ├─gsd-sharing───3*[{gsd-sharing}]
        ├─dbus-daemon                                                             ├─gsd-smartcard───3*[{gsd-smartcard}]
        ├─fwupd───4*[{fwupd}]                                                     ├─gsd-sound───3*[{gsd-sound}]
        ├─gdm3─┬─gdm-session-wor─┬─gdm-wayland-ses─┬─gnome-session-b──2*[{gnom+   ├─gsd-wacom───3*[{gsd-wacom}]
        │      │                 │                 └─2*[{gdm-wayland-ses}]        ├─gsd-xsettings───3*[{gsd-xsettings}]
        │      │                 └─2*[{gdm-session-wor}]                          ├─gvfs-afc-volume───3*[{gvfs-afc-volume}]
        │      └─2*[{gdm3}]                                                       ├─gvfs-goa-volume───2*[{gvfs-goa-volume}]
        ├─gnome-keyring-d───3*[{gnome-keyring-d}]                                 ├─gvfs-gphoto2-vo───2*[{gvfs-gphoto2-vo}]
        ├─irqbalance───{irqbalance}                                              ├─gvfs-mtp-volume───2*[{gvfs-mtp-volume}]
        ├─2*[kerneloops]                                                          ├─gvfs-udisks2-vo───3*[{gvfs-udisks2-vo}]
        ├─networkd-dispat                                                         ├─gvfsd─┬─gvfsd-trash───2*[{gvfsd-trash}]
        ├─packagekitd───2*[{packagekitd}]                                         │       └─2*[{gvfsd}]
        ├─polkitd───2*[{polkitd}]                                                 ├─gvfsd-fuse───5*[{gvfsd-fuse}]
        ├─power-profiles-───2*[{power-profiles-}]                                 ├─gvfsd-metadata───2*[{gvfsd-metadata}]
        ├─rsyslogd───3*[{rsyslogd}]                                               ├─ibus-portal───2*[{ibus-portal}]
        ├─rtkit-daemon───2*[{rtkit-daemon}]                                       ├─ibus-x11───2*[{ibus-x11}]
        ├─snapd───12*[{snapd}]                                                    ├─pipewire───{pipewire}
        ├─switcheroo-cont───2*[{switcheroo-cont}]                                 ├─pipewire-media-───{pipewire-media-}
        ├─systemd─┬─(sd-pam)                                                      ├─pulseaudio───3*[{pulseaudio}]
        │         ├─VBoxClient───VBoxClient───3*[{VBoxClient}]                    ├─sh───ibus-daemon─┬─ibus-dconf───3*[{ibus-dconf}]
        │         ├─VBoxClient───VBoxClient───4*[{VBoxClient}]                    │                  ├─ibus-engine-sim───2*[{ibus-engine-sim}]
        │         ├─VBoxClient───VBoxClient───2*[{VBoxClient}]                    │                  ├─ibus-extension-───3*[{ibus-extension-}]
        │         ├─at-spi2-registr───2*[{at-spi2-registr}]                       │                  └─2*[{ibus-daemon}]
        │         ├─dbus-daemon                                                   ├─snap-store───4*[{snap-store}]
        │         ├─dconf-service───2*[{dconf-service}]                           ├─snapd-desktop-i───snapd-desktop-i───4*[{snapd-desktop-i}]
        │         ├─evolution-addre───5*[{evolution-addre}]                       ├─tracker-miner-f───5*[{tracker-miner-f}]
        │         ├─evolution-calen───12*[{evolution-calen}]                      ├─xdg-desktop-por───5*[{xdg-desktop-por}]
        │         ├─evolution-sourc───3*[{evolution-sourc}]                       ├─2*[xdg-desktop-por───3*[{xdg-desktop-por}]]
        │         ├─2*[gjs───4*[{gjs}]]                                           ├─xdg-document-po─┬─fusermount3
        │         ├─gnome-session-b─┬─at-spi-bus-laun─┬─dbus-daemon               │                 └─5*[{xdg-document-po}]
        │         │                 │                 └─3*[{at-spi-bus-laun}]     └─xdg-permission-───2*[{xdg-permission-}]
        │         │                 ├─evolution-alarm───5*[{evolution-alarm}]    ├─systemd-journal
        │         │                 ├─gsd-disk-utilit───2*[{gsd-disk-utilit}]    ├─systemd-logind
        │         │                 ├─update-notifier───3*[{update-notifier}]    ├─systemd-oomd
        │         │                 └─3*[{gnome-session-b}]                       ├─systemd-resolve
        │         ├─gnome-session-c───{gnome-session-c}                           ├─systemd-timesyn───{systemd-timesyn}
        │         ├─gnome-shell─┬─Xwayland                                        ├─systemd-udevd
        │         │             ├─gjs───5*[{gjs}]                                 ├─udisksd───4*[{udisksd}]
        │         │             └─13*[{gnome-shell}]                              ├─unattended-upgr───{unattended-upgr}
        │         ├─gnome-shell-cal───5*[{gnome-shell-cal}]                       ├─upowerd───2*[{upowerd}]
        │         ├─2*[gnome-terminal───gnome-terminal.───3*[{gnome-terminal.}]+  └─wpa_supplicant
        │         ├─gnome-terminal.─┬─2*[bash───sudo───sudo───login───sh]
```

8. execute command `tail –f /var/log/syslog`

- commands:

    o tail -f /var/log/syslog

- screen shot:

```
mariam@mariam-VirtualBox:~/Desktop$ tail -f /var/log/syslog
Feb 20 15:42:37 mariam-VirtualBox gnome-shell[1401]: Window manager warning: Overwriting ex
isting binding of keysym 39 with keysym 39 (keycode 12).
Feb 20 15:42:38 mariam-VirtualBox dbus-daemon[1251]: [session uid=1000 pid=1251] Successful
ly activated service 'org.freedesktop.FileManager1'
Feb 20 15:42:38 mariam-VirtualBox dbus-daemon[1251]: [session uid=1000 pid=1251] Activating
 service name='org.gnome.ArchiveManager1' requested by ':1.139' (uid=1000 pid=4048 comm="gj
s /usr/share/gnome-shell/extensions/ding@rasters" label="unconfined")
Feb 20 15:42:44 mariam-VirtualBox dbus-daemon[1251]: [session uid=1000 pid=1251] Successful
ly activated service 'org.gnome.ArchiveManager1'
Feb 20 15:42:44 mariam-VirtualBox gnome-shell[1401]: DING: Detected async api for thumbnail
s
Feb 20 15:42:44 mariam-VirtualBox gnome-shell[1401]: DING: GNOME nautilus 42.2
Feb 20 15:42:46 mariam-VirtualBox gnome-shell[1401]: JS ERROR: TypeError: this.actor is nul
l#012_syncEnabled@resource:///org/gnome/shell/ui/windowManager.js:138:25#012onStopped@resou
rce:///org/gnome/shell/ui/windowManager.js:150:35#012_makeEaseCallback/<@resource:///org/gn
ome/shell/ui/environment.js:151:22#012_easeActorProperty/<@resource:///org/gnome/shell/ui/e
nvironment.js:317:60#012_destroyWindowDone@resource:///org/gnome/shell/ui/windowManager.js:
1596:21#012onStopped@resource:///org/gnome/shell/ui/windowManager.js:1564:39#012_makeEaseCa
llback/<@resource:///org/gnome/shell/ui/environment.js:151:22#012_easeActor/<@resource:///o
rg/gnome/shell/ui/environment.js:240:64
Feb 20 15:42:48 mariam-VirtualBox nautilus[4041]: Could not delete '.meta.isrunning': No su
ch file or directory
Feb 20 15:42:50 mariam-VirtualBox systemd[1228]: Started VTE child process 4118 launched by
 gnome-terminal-server process 3619.
Feb 20 15:43:02 mariam-VirtualBox systemd[1]: fprintd.service: Deactivated successfully.
Feb 20 15:44:42 mariam-VirtualBox gnome-shell[1401]: Window manager warning: Ping serial 35
94258 was reused for window W17, previous use was for window W12.
Feb 20 15:44:45 mariam-VirtualBox gnome-shell[1401]: Window manager warning: Ping serial 35
97430 was reused for window W17, previous use was for window W7.
```

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

- commands:

    o ps -aux

    o sudo kill -9 3619

- screen shot:

```
mariam      3619  0.6  0.7 583020 63656 ?        Rsl  15:03   0:17 /usr/libexec/
mariam      3638  0.0  0.0  19800  5236 pts/0    Ss   15:03   0:00 bash
root        3644  0.0  0.0  23176  6072 pts/0    S+   15:03   0:00 sudo login
root        3647  0.0  0.0  23176  2576 pts/1    Ss   15:03   0:00 sudo login
root        3648  0.0  0.0  22364  5400 pts/1    S    15:03   0:00 login
itiuser1    3728  0.0  0.0   2888   996 pts/1    S+   15:04   0:00 -sh
mariam      3789  0.0  0.0  19800  5232 pts/3    Ss   15:11   0:00 bash
root        3799  0.0  0.0  23040  5944 pts/3    S+   15:11   0:00 sudo login
root        3800  0.0  0.0  23040  2516 pts/4    Ss   15:11   0:00 sudo login
root        3801  0.0  0.0  22372  5328 pts/4    S    15:11   0:00 login
itiuser2    3837  0.0  0.0   2888   972 pts/4    S+   15:11   0:00 -sh
root        4007  0.0  0.0      0     0 ?        I    15:31   0:00 [kworker/1:0-
root        4010  0.0  0.0      0     0 ?        I    15:31   0:00 [kworker/0:3-
root        4011  0.0  0.0      0     0 ?        I    15:32   0:00 [kworker/u4:1
root        4019  0.0  0.0      0     0 ?        I    15:37   0:00 [kworker/u4:2
mariam      4048  1.2  0.8 2817408 71644 ?       Sl   15:42   0:02 gjs /usr/shar
root        4109  0.0  0.0      0     0 ?        I    15:42   0:00 [kworker/0:1-
mariam      4112  0.1  0.2  44500 19176 ?        S    15:42   0:00 /usr/bin/pyth
mariam      4113  0.3  0.3 391792 27712 ?        Sl   15:42   0:00 /usr/bin/gnom
mariam      4118  0.0  0.0  19800  5276 pts/2    Ss   15:42   0:00 bash
mariam      4129  0.0  0.0  17060  1056 pts/2    S+   15:43   0:00 tail -f /var/
mariam      4135  1.1  0.2  44500 19448 ?        S    15:45   0:00 /usr/bin/pyth
mariam      4136  3.1  0.3 391804 27400 ?        Sl   15:45   0:00 /usr/bin/gnom
mariam      4141  0.3  0.0  19800  5112 pts/5    Ss   15:45   0:00 bash
mariam      4173  0.0  0.0  21596  3736 pts/5    R+   15:46   0:00 ps -aux
mariam@mariam-VirtualBox:~/Desktop$ sudo kill -9 3619
```