Lab-2

1-create users and group

```
yossef@ubuntu-18:/$ sudo useradd -m itiuser1
yossef@ubuntu-18:/$ sudo useradd -m itiuser2
yossef@ubuntu-18:/$ groupadd os_team
```

2-create directory

```
yossef@ubuntu-18:/var/tmp$ mkdir os_team_workspace
yossef@ubuntu-18:/var/tmp$ stat os_team_workspace/
  File: os_team_workspace/
  Size: 4096            Blocks: 8          IO Block: 4096   directory
Device: 801h/2049d      Inode: 526338      Links: 2
Access: (0775/drwxrwxr-x)  Uid: ( 1000/  yossef)   Gid: ( 1000/  yossef)
Access: 2023-02-12 14:02:18.003936327 +0200
Modify: 2023-02-12 14:02:18.003936327 +0200
Change: 2023-02-12 14:02:18.003936327 +0200
 Birth: -
```

3-assign group to the directory

```
yossef@ubuntu-18:/var/tmp$ sudo chgrp os_team  os_team_workspace/
yossef@ubuntu-18:/var/tmp$ ls -l os_team_workspace/
total 0
yossef@ubuntu-18:/var/tmp$ stat os_team_workspace/
  File: os_team_workspace/
  Size: 4096            Blocks: 8          IO Block: 4096   directory
Device: 801h/2049d      Inode: 526338      Links: 2
Access: (0775/drwxrwxr-x)  Uid: ( 1000/  yossef)   Gid: ( 1003/ os_team)
Access: 2023-02-12 14:10:29.275929787 +0200
Modify: 2023-02-12 14:02:18.003936327 +0200
Change: 2023-02-12 14:10:25.079929843 +0200
 Birth: -
```

4-add users to a group and setgid

```
yossef@ubuntu-18:/var/tmp$ sudo usermod -a -G os_team itiuser1
yossef@ubuntu-18:/var/tmp$ sudo usermod -a -G os_team itiuser2
yossef@ubuntu-18:/var/tmp$
```

```
yossef@ubuntu-18:/var/tmp$ sudo chmod 2775 os_team_workspace/
yossef@ubuntu-18:/var/tmp$ stat os_team_workspace/
  File: os_team_workspace/
  Size: 4096            Blocks: 8          IO Block: 4096   directory
Device: 801h/2049d      Inode: 526338      Links: 2
Access: (2775/drwxrwsr-x)  Uid: ( 1000/  yossef)   Gid: ( 1003/ os_team)
Access: 2023-02-12 14:10:29.275929787 +0200
Modify: 2023-02-12 14:02:18.003936327 +0200
Change: 2023-02-12 14:12:06.919928487 +0200
 Birth: -
```

5-create directory using users and list permissions

```
yossef@ubuntu-18:/var/tmp/os_team_workspace$ sudo -u itiuser1 mkdir mydir1
yossef@ubuntu-18:/var/tmp/os_team_workspace$ ls
mydir1
yossef@ubuntu-18:/var/tmp/os_team_workspace$ stat mydir1
  File: mydir1
  Size: 4096            Blocks: 8           IO Block: 4096    directory
Device: 801h/2049d      Inode: 658502       Links: 2
Access: (2755/drwxr-sr-x)  Uid: ( 1001/itiuser1)   Gid: ( 1003/ os_team)
Access: 2023-02-12 14:17:54.931923854 +0200
Modify: 2023-02-12 14:17:54.931923854 +0200
Change: 2023-02-12 14:17:54.931923854 +0200
 Birth: -
yossef@ubuntu-18:/var/tmp/os_team_workspace$ sudo -u itiuser2 mkdir mydir2
yossef@ubuntu-18:/var/tmp/os_team_workspace$ stat mydir2
  File: mydir2
  Size: 4096            Blocks: 8           IO Block: 4096    directory
Device: 801h/2049d      Inode: 790534       Links: 2
Access: (2755/drwxr-sr-x)  Uid: ( 1002/itiuser2)   Gid: ( 1003/ os_team)
Access: 2023-02-12 14:18:39.619923259 +0200
Modify: 2023-02-12 14:18:39.619923259 +0200
Change: 2023-02-12 14:18:39.619923259 +0200
 Birth: -
```

6-processes in treemod

```
yossef@ubuntu-18:/$ pstree
systemd─┬─ModemManager───2*[{ModemManager}]
        ├─NetworkManager─┬─dhclient
        │                └─2*[{NetworkManager}]
        ├─3*[VBoxClient───VBoxClient───3*[{VBoxClient}]]
        ├─VBoxClient───VBoxClient───4*[{VBoxClient}]
        ├─accounts-daemon───2*[{accounts-daemon}]
        ├─acpid
        ├─apache2───2*[apache2───26*[{apache2}]]
        ├─apt.systemd.dai───apt.systemd.dai───unattended-upgr─┬─unattended-upgr+++
        │                                                     └─2*[{unattended-+
        ├─avahi-daemon───avahi-daemon
        ├─boltd───2*[{boltd}]
        ├─colord───2*[{colord}]
        ├─cron
        ├─cups-browsed───2*[{cups-browsed}]
        ├─cupsd───2*[dbus]
        ├─dbus-daemon
        ├─fwupd───4*[{fwupd}]
        ├─gdm3─┬─gdm-session-wor─┬─gdm-wayland-ses─┬─gnome-session-b─┬─gnome-sh+
        │                                                            ├─gsd-a11y+
        │                                                            ├─gsd-clip+
        │                                                            ├─gsd-colo+
        │                                                            ├─gsd-date+
        │                                                            ├─gsd-hous+
        │                                                            ├─gsd-keyb+
        │                                                            ├─gsd-medi+
        │                                                            ├─gsd-mous+
        │                                                            ├─gsd-powe+
        │                                                            ├─gsd-prin+
```

```
                                                   ├─gsd-smar+
                                                   ├─gsd-soun+
                                                   ├─gsd-waco+
                                                   ├─gsd-xset+
                                                   └─3*[{gnom+
                             └─2*[{gdm-wayland-ses}]
           ─gdm-session-wor─┬─gdm-x-session─┬─Xorg───{Xorg}
                                            └─gnome-session-b─┬─deja-dup-m+
                                                              ├─gnome-shel+
                                                              ├─gnome-soft+
                                                              ├─gsd-a11y-s+
                                                              ├─gsd-clipbo+
                                                              ├─gsd-color─+++
                                                              ├─gsd-dateti+
                                                              ├─gsd-disk-u+
                                                              ├─gsd-housek+
                                                              ├─gsd-keyboa+
                                                              ├─gsd-media-+
                                                              ├─gsd-mouse─+++
                                                              ├─gsd-power─+++
                                                              ├─gsd-print-+
                                                              ├─gsd-rfkill+++
                                                              ├─gsd-screen+
                                                              ├─gsd-sharin+
                                                              ├─gsd-smartc+
                                                              ├─gsd-sound─+++
                                                              ├─gsd-wacom─+++
                                                              ├─gsd-xsetti+
                                                              ├─nautilus-d+
                                                              ├─ssh-agent
                                                              ├─update-not+
                                                              └─3*[{gnome-+
                                                   └─3*[{gnome-+
                                 └─2*[{gdm-x-session}]
               └─2*[{gdm-session-wor}]
        └─2*[{gdm3}]
   ├─gnome-keyring-d───3*[{gnome-keyring-d}]
   ├─gsd-printer───2*[{gsd-printer}]
   ├─2*[ibus-x11───2*[{ibus-x11}]]
   ├─2*[kerneloops]
   ├─networkd-dispat───{networkd-dispat}
   ├─packagekitd───2*[{packagekitd}]
   ├─polkitd───2*[{polkitd}]
   ├─pulseaudio───3*[{pulseaudio}]
   ├─rsyslogd───3*[{rsyslogd}]
   ├─rtkit-daemon───2*[{rtkit-daemon}]
   ├─snapd───9*[{snapd}]
   ├─systemd─┬─(sd-pam)
   │         ├─at-spi-bus-laun─┬─dbus-daemon
   │         │                 └─3*[{at-spi-bus-laun}]
   │         ├─at-spi2-registr───2*[{at-spi2-registr}]
   │         ├─dbus-daemon
   │         ├─ibus-portal───2*[{ibus-portal}]
   │         ├─pulseaudio───3*[{pulseaudio}]
   │         └─xdg-permission-───2*[{xdg-permission-}]
   ├─systemd─┬─(sd-pam)
   │         ├─at-spi-bus-laun─┬─dbus-daemon
   │         │                 └─3*[{at-spi-bus-laun}]
   │         ├─at-spi2-registr───2*[{at-spi2-registr}]
   │         ├─dbus-daemon
   │         ├─dconf-service───2*[{dconf-service}]
   │         ├─evolution-addre─┬─evolution-addre───5*[{evolution-addre}]
   │         │                 └─4*[{evolution-addre}]
   │         ├─evolution-calen─┬─evolution-calen───8*[{evolution-calen}]
   │         │                 └─4*[{evolution-calen}]
   │         ├─evolution-sourc───3*[{evolution-sourc}]
   │         ├─gnome-shell-cal───5*[{gnome-shell-cal}]
   │         ├─gnome-terminal-─┬─bash─┬─pstree
   │         │                 │      └─sudo───nano
   │         │                 └─3*[{gnome-terminal-}]
   │         ├─goa-daemon───3*[{goa-daemon}]
   │         ├─goa-identity-se───3*[{goa-identity-se}]
   │         ├─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───2*[{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}]
   │         ├─xdg-desktop-por───3*[{xdg-desktop-por}]
   │         ├─xdg-desktop-por───2*[{xdg-desktop-por}]
   │         ├─xdg-document-po───5*[{xdg-document-po}]
   │         ├─xdg-permission-───2*[{xdg-permission-}]
   │         ├─zeitgeist-daemo───2*[{zeitgeist-daemo}]
   │         └─zeitgeist-fts───2*[{zeitgeist-fts}]
   ├─systemd-journal
   ├─systemd-logind
   ├─systemd-resolve
   ├─systemd-udevd
   ├─udisksd───4*[{udisksd}]
   ├─unattended-upgr───{unattended-upgr}
   ├─upowerd───2*[{upowerd}]
   ├─whoopsie───2*[{whoopsie}]
   └─wpa_supplicant
yossef@ubuntu-18:/$
```

7-execute tail -f /var/log/syslog

```
yossef@ubuntu-18:/$ sudo tail -f /var/log/syslog
Feb 12 14:10:11 ubuntu-18 dbus-daemon[522]: [system] Reloaded configuration
Feb 12 14:12:34 ubuntu-18 kernel: [ 5401.560096] audit: type=1400 audit(1676203954.215:61): apparmor="STATUS" operation="profile_replace" info
="same as current profile, skipping" profile="unconfined" name="/usr/sbin/tcpdump" pid=18064 comm="apparmor_parser"
Feb 12 14:15:39 ubuntu-18 NetworkManager[553]: <info>  [1676204139.7260] manager: kernel firmware directory '/lib/firmware' changed
Feb 12 14:17:01 ubuntu-18 CRON[20354]: (root) CMD (   cd / && run-parts --report /etc/cron.hourly)
Feb 12 14:19:33 ubuntu-18 systemd[1]: Reloading.
Feb 12 14:19:45 ubuntu-18 systemd[1]: message repeated 4 times: [ Reloading.]
Feb 12 14:20:20 ubuntu-18 gnome-software[2337]: failed to rescan: Failed to parse /usr/share/applications/apport-gtk.desktop file: cannot proc
ess file of type application/x-desktop
Feb 12 14:20:20 ubuntu-18 gnome-software[2337]: failed to rescan: Failed to parse /usr/share/applications/apport-gtk.desktop.dpkg-tmp file: ca
nnot process file of type text/plain
Feb 12 14:20:28 ubuntu-18 gnome-software[2337]: tried overwriting io.snapcraft.jami-v2dLJDv8AcX1mtod8h5bmJknlYiIKNTJ key GnomeSoftware::Featur
eTile-css from border-color: #000000;#012color: transparent;#012font-size: 30px;#012background: url('/home/yossef/.cache/gnome-software/cssres
ource/f6382ec312737428383b9771f0adb4d9be7bc434-jami-qt-gnulinux-banner-20220504.png') no-repeat;#012background-position: center;#012background
-size: contain; to border-color: #000000;#012color: transparent;#012font-size: 30px;#012background: url('https://dashboard.snapcraft.io/site_m
edia/appmedia/2022/05/jami-qt-gnulinux-banner-20220504.png') no-repeat;#012background-position: center;#012background-size: contain;
Feb 12 14:20:28 ubuntu-18 gnome-software[2337]: Only 0 apps for recent list, hiding
```

8-kill tail process

```
yossef@ubuntu-18:/$ ps -aux | grep tail
yossef    13036  0.0  0.0  14732  1160 pts/2    S+   14:35   0:00 grep --color=auto tail
root      23364  0.0  0.1  65912  4332 pts/0    T    14:21   0:00 sudo tail -f /var/log/syslog
root      23365  0.0  0.0   7812   876 pts/0    T    14:21   0:00 tail -f /var/log/syslog
root      29981  0.0  0.1  65912  4276 pts/0    S+   14:25   0:00 sudo tail -f /var/log/syslog
root      29982  0.0  0.0   7812   852 pts/0    S+   14:25   0:00 tail -f /var/log/syslog
yossef@ubuntu-18:/$ kill 29981
bash: kill: (29981) - Operation not permitted
yossef@ubuntu-18:/$ sudo kill 29981
[sudo] password for yossef:
yossef@ubuntu-18:/$
```