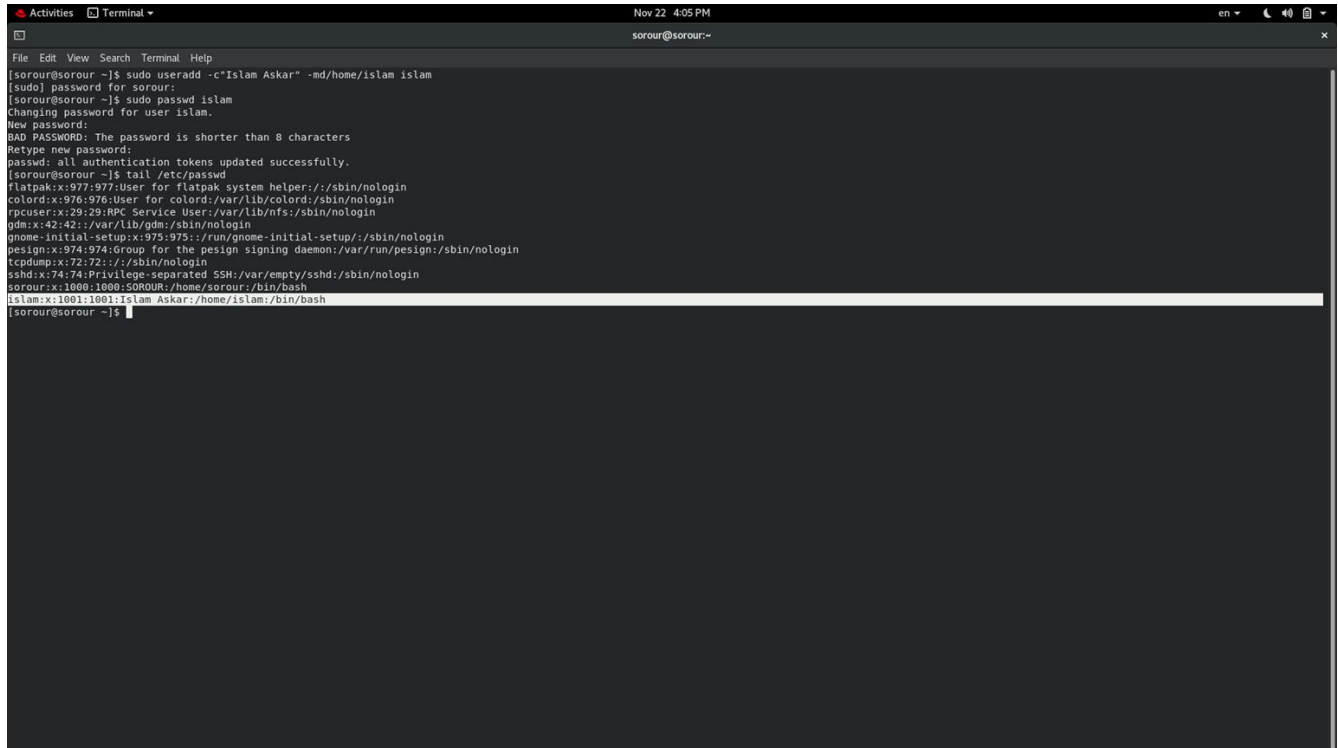


## LAB2

1. Create a user account with the following attribute

- ☐ username: islam
- ☐ Fullname/comment: Islam Askar
- ☐ Password: islam

A terminal window titled 'sorour@sorour:~' showing the execution of commands to create a user. The user 'islam' is created with a home directory of /home/islam and shell /bin/bash. The password 'islam' is set after a failed attempt with a shorter password. The terminal also displays the contents of the /etc/passwd file, listing system users and regular users.

```
sorour@sorour:~  
[sorour@sorour ~]$ sudo useradd -c"Islam Askar" -md/home/islam islam  
[sudo] password for sorour:  
[sorour@sorour ~]$ sudo passwd islam  
Changing password for user islam.  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[sorour@sorour ~]$ tail /etc/passwd  
flatpak:x:977:977:User for flatpak system helper:/:/sbin/nologin  
colord:x:976:976:User for colord:/var/lib/colord:/sbin/nologin  
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin  
gdm:x:42:42:/var/lib/gdm:/sbin/nologin  
gnome-initial-setup:x:975:975:/:run/gnome-initial-setup:/sbin/nologin  
design:x:974:974:Group for the design signing daemon:/var/run/design:/sbin/nologin  
tcpdump:x:72:72:/:/sbin/nologin  
sshd:x:74:74:Privilege-separated SSH:/var/empty/ssh:/sbin/nologin  
sorour:x:1000:1000:sorour:/home/sorour:/bin/bash  
islam:x:1001:1001:Islam Askar:/home/islam:/bin/bash  
[sorour@sorour ~]$
```

2.

Create a user account with the following attribute

- ☐ Username: baduser
- ☐ Full name/comment: Bad User
- ☐ Password: baduser

```
Activities Terminal Nov 22 4:08 PM en
sorour@sorour:~

File Edit View Search Terminal Help
[sorour@sorour ~]$ sudo useradd -c "Islam Askar" -md/home/islam islam
[sudo] password for sorour:
[sorour@sorour ~]$ sudo passwd islam
Changing password for user islam.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ tail /etc/passwd
flatpak:x:977:977:User for flatpak system helper:/usr/sbin/nologin
colord:x:976:976:User for colord:/var/lib/colord:/usr/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/usr/sbin/nologin
gdm:x:42:42:/var/lib/gdm:/usr/sbin/nologin
gnome-initial-setup:x:975:975:/usr/run/gnome-initial-setup:/usr/sbin/nologin
design:x:974:974:Group for the design signing daemon:/usr/run/design:/usr/sbin/nologin
tcpdump:x:72:72:/usr/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/ssh:/usr/sbin/nologin
sorour:x:1000:1000:sorour:/home/sorour:/bin/bash
islam:x:1001:1001:Islam Askar:/home/islam:/bin/bash
[sorour@sorour ~]$ sudo useradd -c "Bad User" baduser
[sorour@sorour ~]$ sudo passwd baduser
Changing password for user baduser.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ tail /etc/passwd
colord:x:976:976:User for colord:/var/lib/colord:/usr/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/usr/sbin/nologin
gdm:x:42:42:/var/lib/gdm:/usr/sbin/nologin
gnome-initial-setup:x:975:975:/usr/run/gnome-initial-setup:/usr/sbin/nologin
design:x:974:974:Group for the design signing daemon:/usr/run/design:/usr/sbin/nologin
tcpdump:x:72:72:/usr/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/ssh:/usr/sbin/nologin
sorour:x:1000:1000:sorour:/home/sorour:/bin/bash
islam:x:1001:1001:Islam Askar:/home/islam:/bin/bash
baduser:x:1002:1002:Bad User:/home/baduser:/bin/bash
[sorour@sorour ~]$
```

3.

Create a supplementary (Secondary) group called pgroup with group ID of 30000

```
Activities Terminal Nov 22 4:26 PM en
sorour@sorour:~

File Edit View Search Terminal Help
[sorour@sorour ~]$ man man
[sorour@sorour ~]$ man addgroup
No manual entry for addgroup
[sorour@sorour ~]$ man groupadd
[sorour@sorour ~]$ group add -g 30000 pgroup
bash: group: command not found...
[sorour@sorour ~]$ groupadd -g 30000 pgroup
groupadd: Permission denied.
groupadd: cannot lock /etc/group; try again later.
[sorour@sorour ~]$ sudo groupadd -g 30000 pgroup
[sudo] password for sorour:
[sorour@sorour ~]$ tail -1 /etc/group
pgroup:x:30000:
[sorour@sorour ~]$
```

4.

Create a supplementary group called badgroup

```
Activities Terminal Nov 22 4:26 PM en 40 x
sorour@sorour:~
File Edit View Search Terminal Help
[sorour@sorour ~]$ man man
[sorour@sorour ~]$ man addgroup
No manual entry for addgroup
[sorour@sorour ~]$ man groupadd
[sorour@sorour ~]$ group add -g 30000 pgroup
bash: group: command not found...
[sorour@sorour ~]$ groupadd -g 30000 pgroup
groupadd: Permission denied.
groupadd: cannot lock /etc/group: try again later.
[sorour@sorour ~]$ sudo groupadd -g 30000 pgroup
[sudo] password for sorour:
[sorour@sorour ~]$ tail -1 /etc/group
pgroup:x:30000:
[sorour@sorour ~]$
```

5.

## Add islam user to the pgroup group as a supplementary group

```
Activities Terminal Nov 22 7:45 PM en 40 x
sorour@sorour:~
File Edit View Search Terminal Help
[sorour@sorour ~]$ man usermod
[sorour@sorour ~]$ usermod -a -G pgroup islam
usermod: Permission denied.
usermod: cannot lock /etc/passwd: try again later.
[sorour@sorour ~]$ sudo usermod -a -G pgroup islam
[sudo] password for sorour:
[sorour@sorour ~]$
```

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6.

## Modify the password of islam's account to password

```
Activities Terminal Nov 22 7:46 PM en
sorour@sorour:~
File Edit View Search Terminal Help
[sorour@sorour ~]$ man usermod
[sorour@sorour ~]$ usermod -a -G pggroup islam
usermod: Permission denied.
usermod: cannot lock /etc/passwd; try again later.
[sorour@sorour ~]$ sudo usermod -a -G pggroup islam
[sudo] password for sorour:
[sorour@sorour ~]$ sudo passwd islam
Changing password for user islam.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$
```

Download "RHSA1\_Lab2.pdf"

## 7. Modify islam's account so the password expires after 30 days

```
Activities Terminal Nov 22 7:49 PM en
sorour@sorour:~
File Edit View Search Terminal Help
[sorour@sorour ~]$ man usermod
[sorour@sorour ~]$ usermod -a -G pggroup islam
usermod: Permission denied.
usermod: cannot lock /etc/passwd; try again later.
[sorour@sorour ~]$ sudo usermod -a -G pggroup islam
[sudo] password for sorour:
[sorour@sorour ~]$ sudo passwd islam
Changing password for user islam.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ sudo chage -E 30
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                   show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS      set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                   show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS      set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022 LOGIN
chage: user 'LOGIN' does not exist in /etc/passwd
[sorour@sorour ~]$ sudo chage -E 12/22/2022 islam
[sorour@sorour ~]$
```

Download "RHSA1\_Lab2.pdf"

## 8. Lock bad user account so he can't log in

```
Activities Terminal Nov 22 7:53 PM en sorour@sorour:~
File Edit View Search Terminal Help
[sudo] password for sorour:
[sorour@sorour ~]$ sudo passwd islam
Changing password for user islam.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ sudo chage -E 30
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022 LOGIN
chage: user 'LOGIN' does not exist in /etc/passwd
[sorour@sorour ~]$ sudo chage -E 12/22/2022 islam
[sorour@sorour ~]$ man chmod
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ man passwd
[sorour@sorour ~]$ passwd -l islam
Only root can do that.
[sorour@sorour ~]$ sudo passwd -l islam
Locking password for user islam.
passwd: Success
[sorour@sorour ~]$
```

## 9. Delete bad user account

```
Activities Terminal Nov 22 7:54 PM en sorour@sorour:~
File Edit View Search Terminal Help
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ sudo chage -E 30
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST_DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022 LOGIN
chage: user 'LOGIN' does not exist in /etc/passwd
[sorour@sorour ~]$ sudo chage -E 12/22/2022 islam
[sorour@sorour ~]$ man chmod
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ man passwd
[sorour@sorour ~]$ passwd -l islam
Only root can do that.
[sorour@sorour ~]$ sudo passwd -l islam
Locking password for user islam.
passwd: Success
[sorour@sorour ~]$ man userdel
[sorour@sorour ~]$ userdel -r islam
userdel: Permission denied.
userdel: cannot lock /etc/passwd; try again later.
[sorour@sorour ~]$ sudo userdel -r baduser
[sorour@sorour ~]$
```

## 10. Delete the supplementary group called badgroup.

```
Activities Terminal Nov 22 7:55 PM
sorour@sorour:~$
File Edit View Search Terminal Help
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ sudo chage -E 30
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022
Usage: chage [options] LOGIN

Options:
  -d, --lastday LAST_DAY      set date of last password change to LAST DAY
  -E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -h, --help                  display this help message and exit
  -I, --inactive INACTIVE     set password inactive after expiration
                              to INACTIVE
  -l, --list                  show account aging information
  -m, --mindays MIN_DAYS      set minimum number of days before password
                              change to MIN_DAYS
  -M, --maxdays MAX_DAYS     set maximum number of days before password
                              change to MAX_DAYS
  -R, --root CHROOT_DIR       directory to chroot into
  -W, --warndays WARN_DAYS    set expiration warning days to WARN_DAYS

[sorour@sorour ~]$ sudo chage -E 12/22/2022 LOGIN
chage: user 'LOGIN' does not exist in /etc/passwd
[sorour@sorour ~]$ sudo chage -E 12/22/2022 islam
[sorour@sorour ~]$ man chmod
[sorour@sorour ~]$ man chage
[sorour@sorour ~]$ man passwd
[sorour@sorour ~]$ passwd -l islam
Only root can do that.
[sorour@sorour ~]$ sudo passwd -l islam
Locking password for user islam.
passwd: Success
[sorour@sorour ~]$ man userdel
[sorour@sorour ~]$ userdel -r islam
userdel: Permission denied.
userdel: cannot lock /etc/passwd; try again later.
[sorour@sorour ~]$ sudo userdel -r baduser
[sorour@sorour ~]$ sudo groupdel badgroup
[sorour@sorour ~]$
```

13. Create a folder called myteam in your home directory and change its permissions to read only for the owner.

```
Activities Terminal Nov 23 1:39 PM
sorour@sorour:~$
File Edit View Search Terminal Help
[sorour@sorour ~]$ pwd
/home/sorour
[sorour@sorour ~]$ mkdir myteam
[sorour@sorour ~]$ man chmod
No manual entry for chmod
[sorour@sorour ~]$ man chmod
[sorour@sorour ~]$ sudo chmod 400 myteam
[sudo] password for sorour:
[sorour@sorour ~]$ ll
total 8
drwxr-xr-x. 2 sorour sorour  6 Nov 21 15:21 Desktop
drwxrwxr-x. 2 sorour sorour 18 Nov 22 14:12 docs
drwxr-xr-x. 2 sorour sorour 106 Nov 23 13:33 Documents
drwxr-xr-x. 2 sorour sorour 144 Nov 22 19:36 Downloads
drwxr-xr-x. 2 sorour sorour  6 Nov 21 15:21 Music
drwxr-xr-x. 2 sorour sorour  6 Nov 23 13:37 myteam
drwxrwxr-x. 2 sorour sorour  6 Nov 22 12:48 nftsmount
-rw-r--r--. 1 sorour sorour 2637 Nov 22 14:21 oldpasswd
drwxr-xr-x. 2 sorour sorour  6 Nov 23 13:37 Pictures
drwxr-xr-x. 2 sorour sorour  6 Nov 21 15:21 Public
-rw-rw-r--. 1 sorour sorour 22 Nov 22 14:46 README.md
drwxr-xr-x. 2 sorour sorour  6 Nov 21 15:21 Templates
drwxr-xr-x. 2 sorour sorour  6 Nov 21 15:21 Videos
[sorour@sorour ~]$
```

14. Log out and log in by another user

```
Activities Terminal Nov 23 1:42 PM
sorour2@sorour:~
File Edit View Search Terminal Help
[sorour@sorour ~]$ userdel
adm          gluster          rpcuser
avahi        gnome-initial-setup rtkit
bin          halt              saslauth
chrony       libstoragemgmt    setroubleshoot
clevs        lp                shutdown
cockpit-ws   mail              sorour
cockpit-wsinstance nobody          sorour2
colord       operator          sshd
daemon       pesign            sssd
dbus         pipewire          sync
dnsmasq      polkitd           systemd-coredump
flatpak      pulse             systemd-resolve
ftp          qemu              tcpdump
games        radvd             tss
gdm          root              unbound
geoclue      rpc               usbmuxd
[sorour@sorour ~]$ userdel
adm          gluster          rpcuser
avahi        gnome-initial-setup rtkit
bin          halt              saslauth
chrony       libstoragemgmt    setroubleshoot
clevs        lp                shutdown
cockpit-ws   mail              sorour
cockpit-wsinstance nobody          sorour2
colord       operator          sshd
daemon       pesign            sssd
dbus         pipewire          sync
dnsmasq      polkitd           systemd-coredump
flatpak      pulse             systemd-resolve
ftp          qemu              tcpdump
games        radvd             tss
gdm          root              unbound
geoclue      rpc               usbmuxd
[sorour@sorour ~]$ tail -2 /etc/passwd
sorour:x:1000:1000:SOROUR:/home/sorour:/bin/bash
sorour2xx:1001:1001::/home/sorour2:/bin/bash
[sorour@sorour ~]$ su sorour2
Password:
su: Authentication failure
[sorour@sorour ~]$ sudo passwd sorour2
[sudo] password for sorour:
Changing password for user sorour2.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ su - sorour2
Password:
[sorour2@sorour ~]$
```

## 15. Try to access (by cd command) the folder (myteam)

```
Activities Terminal Nov 23 1:44 PM
sorour2@sorour:/
File Edit View Search Terminal Help
ftp          qemu              tcpdump
games        radvd             tss
gdm          root              unbound
geoclue      rpc               usbmuxd
[sorour@sorour ~]$ userdel
adm          gluster          rpcuser
avahi        gnome-initial-setup rtkit
bin          halt              saslauth
chrony       libstoragemgmt    setroubleshoot
clevs        lp                shutdown
cockpit-ws   mail              sorour
cockpit-wsinstance nobody          sorour2
colord       operator          sshd
daemon       pesign            sssd
dbus         pipewire          sync
dnsmasq      polkitd           systemd-coredump
flatpak      pulse             systemd-resolve
ftp          qemu              tcpdump
games        radvd             tss
gdm          root              unbound
geoclue      rpc               usbmuxd
[sorour@sorour ~]$ tail -2 /etc/passwd
sorour:x:1000:1000:SOROUR:/home/sorour:/bin/bash
sorour2xx:1001:1001::/home/sorour2:/bin/bash
[sorour@sorour ~]$ su sorour2
Password:
su: Authentication failure
[sorour@sorour ~]$ sudo passwd sorour2
[sudo] password for sorour:
Changing password for user sorour2.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[sorour@sorour ~]$ su - sorour2
Password:
[sorour2@sorour ~]$ ls
[sorour2@sorour ~]$ cd ../../..
[sorour2@sorour ~]$ pwd
/
[sorour2@sorour ~]$ cd /home/sorour/
-bash: cd: /home/sorour/: Permission denied
[sorour2@sorour ~]$ sudo cd /home/sorour/myteam
We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

[sudo] password for sorour2:
sorour2 is not in the sudoers file. This incident will be reported.
[sorour2@sorour ~]$
```

## 16. Using the command Line

Change the permissions of oldpasswd file to give owner read and write permissions and for group write and execute and execute only for the others (using chmod in 2 different ways)

```
Activities Terminal Nov 23 1:55 PM
sorour@sorour:~$
File Edit View Search Terminal Help
[sudo] password for sorour2:
sorour2 is not in the sudoers file. This incident will be reported.
[sorour2@sorour /]$ su - sorour
Password:
[sorour@sorour ~]$ ls
Desktop Documents Music nftsmount Pictures README.md Videos
docs Downloads myteam oldpasswd Public Templates
[sorour@sorour ~]$ chmod 631 oldpasswd
[sorour@sorour ~]$ ll
total 8
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Desktop
drwxrwxr-x. 2 sorour sorour 18 Nov 22 14:12 docs
drwxr-xr-x. 2 sorour sorour 106 Nov 23 13:43 Documents
drwxr-xr-x. 2 sorour sorour 144 Nov 22 19:36 Downloads
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Music
dr----- 2 sorour sorour 6 Nov 23 13:37 myteam
drwxrwxr-x. 2 sorour sorour 6 Nov 22 12:48 nftsmount
-rw-rx--x. 1 sorour sorour 2637 Nov 22 14:21 oldpasswd
drwxr-xr-x. 2 sorour sorour 147 Nov 23 13:44 Pictures
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Public
-rw-rw-r-- 1 sorour sorour 22 Nov 22 14:46 README.md
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Templates
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Videos
[sorour@sorour ~]$ chmod u=rw, g=rx, o=x oldpasswd
chmod: invalid mode: 'u=rw,'
Try 'chmod --help' for more information.
[sorour@sorour ~]$ chmod -u=rw, -g=rx, -o=x oldpasswd
chmod: invalid mode: '-u=rw, -g=rx, -o=x'
Try 'chmod --help' for more information.
[sorour@sorour ~]$ man chmod
[sorour@sorour ~]$ chmod u=rw, g=rx, o=x oldpasswd
chmod: invalid mode: 'u=rw,'
Try 'chmod --help' for more information.
[sorour@sorour ~]$ chmod 000 oldpasswd
[sorour@sorour ~]$ chmod u=rw, g=rx, o=x oldpasswd
chmod: invalid mode: 'u=rw,'
Try 'chmod --help' for more information.
[sorour@sorour ~]$ chmod u=rw,g=rx,o=x oldpasswd
[sorour@sorour ~]$ ll
total 8
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Desktop
drwxrwxr-x. 2 sorour sorour 18 Nov 22 14:12 docs
drwxr-xr-x. 2 sorour sorour 106 Nov 23 13:43 Documents
drwxr-xr-x. 2 sorour sorour 144 Nov 22 19:36 Downloads
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Music
dr----- 2 sorour sorour 6 Nov 23 13:37 myteam
drwxrwxr-x. 2 sorour sorour 6 Nov 22 12:48 nftsmount
-rw-rx--x. 1 sorour sorour 2637 Nov 22 14:21 oldpasswd
drwxr-xr-x. 2 sorour sorour 147 Nov 23 13:44 Pictures
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Public
-rw-rw-r-- 1 sorour sorour 22 Nov 22 14:46 README.md
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Templates
drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Videos
[sorour@sorour ~]$
```

Change your default permissions to be as above.

```
Activities Terminal Nov 23 2:47 PM
sorour@sorour:~$
File Edit View Search Terminal Help
[sorour@sorour ~]$ ls
Desktop Documents filewithperm myteam oldpasswd Public Templates
docs Downloads Music nftsmount Pictures README.md Videos
[sorour@sorour ~]$ rm filewithperm
rm: remove write-protected regular empty file 'filewithperm'?
[sorour@sorour ~]$ ls
Desktop Documents filewithperm myteam oldpasswd Public Templates
docs Downloads Music nftsmount Pictures README.md Videos
[sorour@sorour ~]$ sudo rm filewithperm
[sudo] password for sorour:
[sorour@sorour ~]$ ls
Desktop Documents Music nftsmount Pictures README.md Videos
docs Downloads myteam oldpasswd Public Templates
[sorour@sorour ~]$ man umask
[sorour@sorour ~]$ umask 140
[sorour@sorour ~]$
```

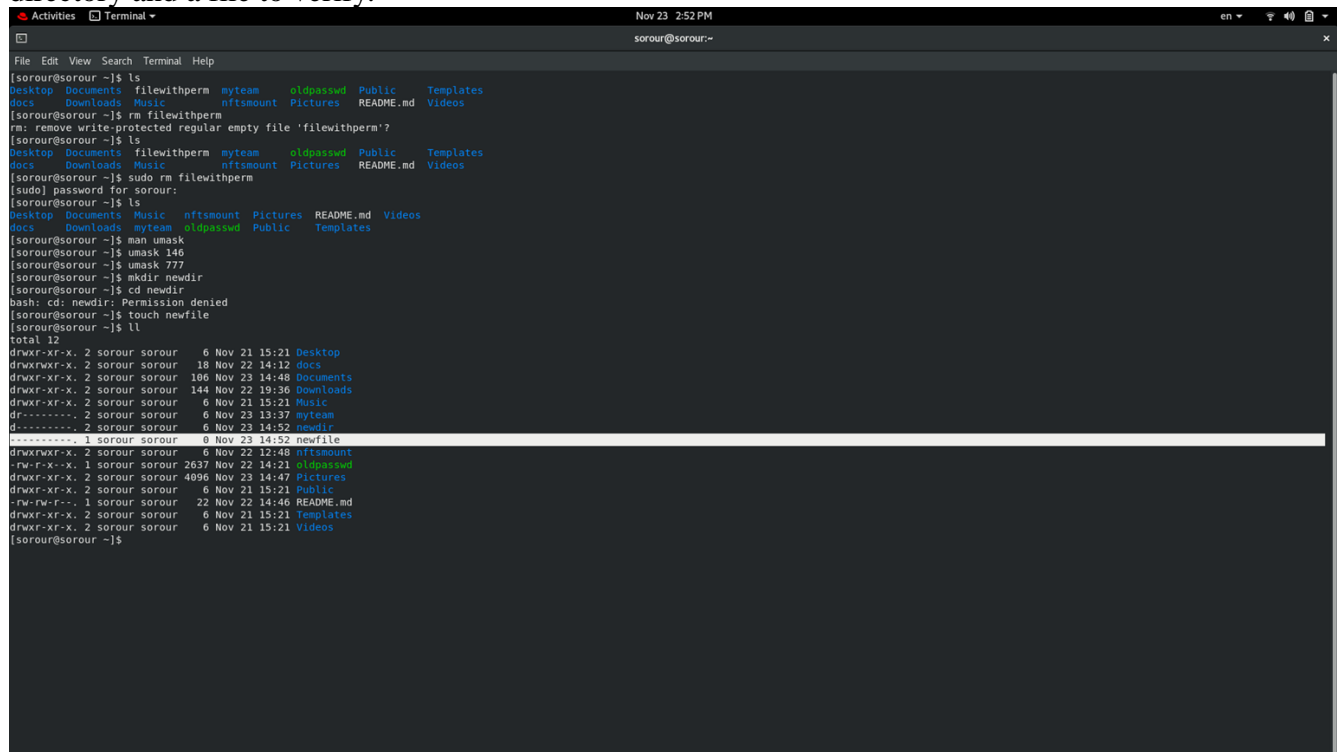
What is the maximum permission a file can have, by default when it is just created? And what is that for directory.

File → 666 /RW

Folder → 777/ RWX



Change your default permissions to be no permission to everyone then create a directory and a file to verify.

A terminal window titled 'Nov 23 2:52 PM' and 'sorour@sorour:~' showing a series of commands and their outputs. The user starts by running 'ls' in the 'sorour' directory, showing files like 'Desktop', 'Documents', 'filewithperm', 'myteam', 'oldpasswd', 'Public', and 'Templates'. They then run 'rm filewithperm' and 'sudo rm filewithperm' (after a password prompt). Next, they run 'man umask' and 'umask 146'. They create a new directory 'newdir' with 'mkdir newdir' and attempt to change to it with 'cd newdir', which results in a 'Permission denied' error. They then create a new file 'newfile' with 'touch newfile' and list its permissions with 'll', showing 'total 12' and 'drwxr-xr-x. 2 sorour sorour 6 Nov 21 15:21 Desktop'. Finally, they run 'ls -l' to show the permissions of all files in the current directory, including 'Desktop', 'docs', 'Downloads', 'Music', 'myteam', 'newfile', 'nftsmount', 'Pictures', 'README.md', and 'Videos'.

17.

What are the minimum permission needed for:

☐ Copy a directory (permission for source directory and permissions for target parent directory)

permission for source directory → 041

permissions for target parent directory → 021

☐ Copy a file (permission for source file and and permission for target parent directory)

permission for source file → 400

permissions for target parent directory → 021

☐ Delete a file

permission → 021

☐ Change to a directory

permission → 001

☐ List a directory content (ls command)

permission → 401

☐ View a file content (more/cat command)

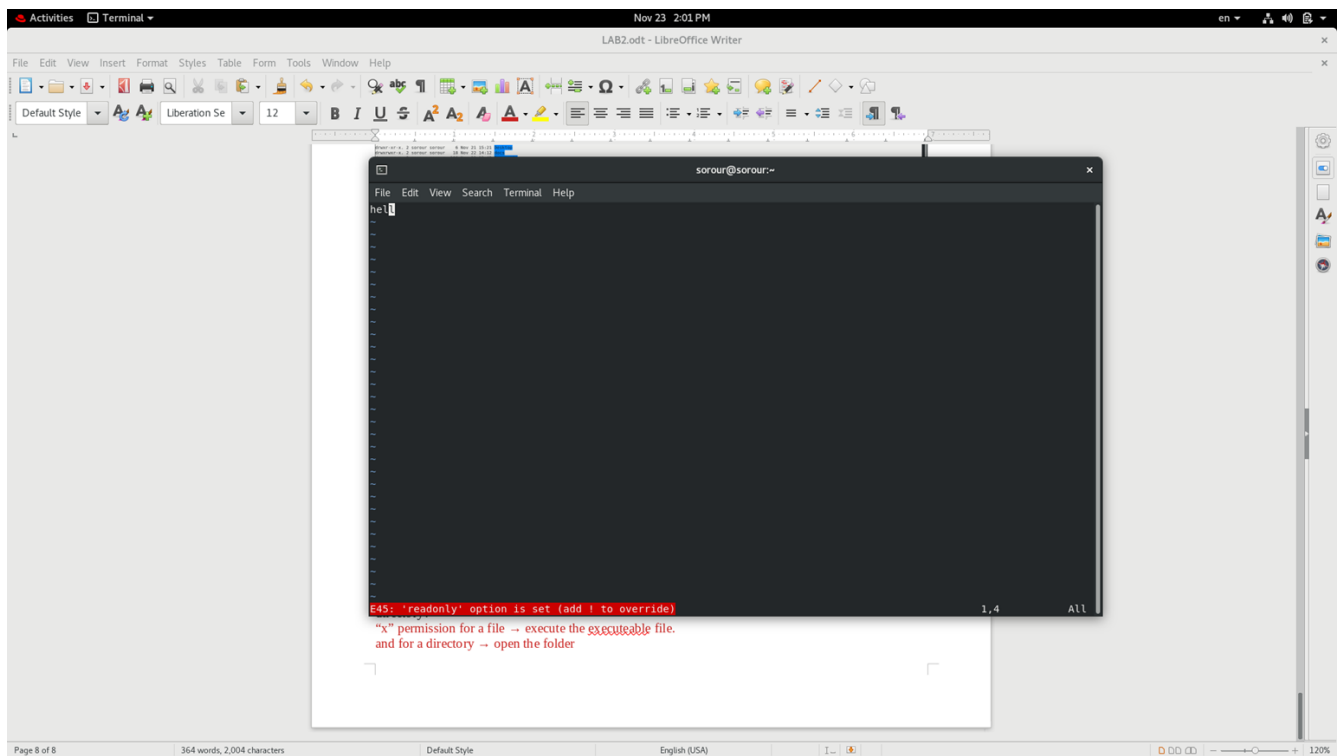
permission → 400

☐ Modify a file content

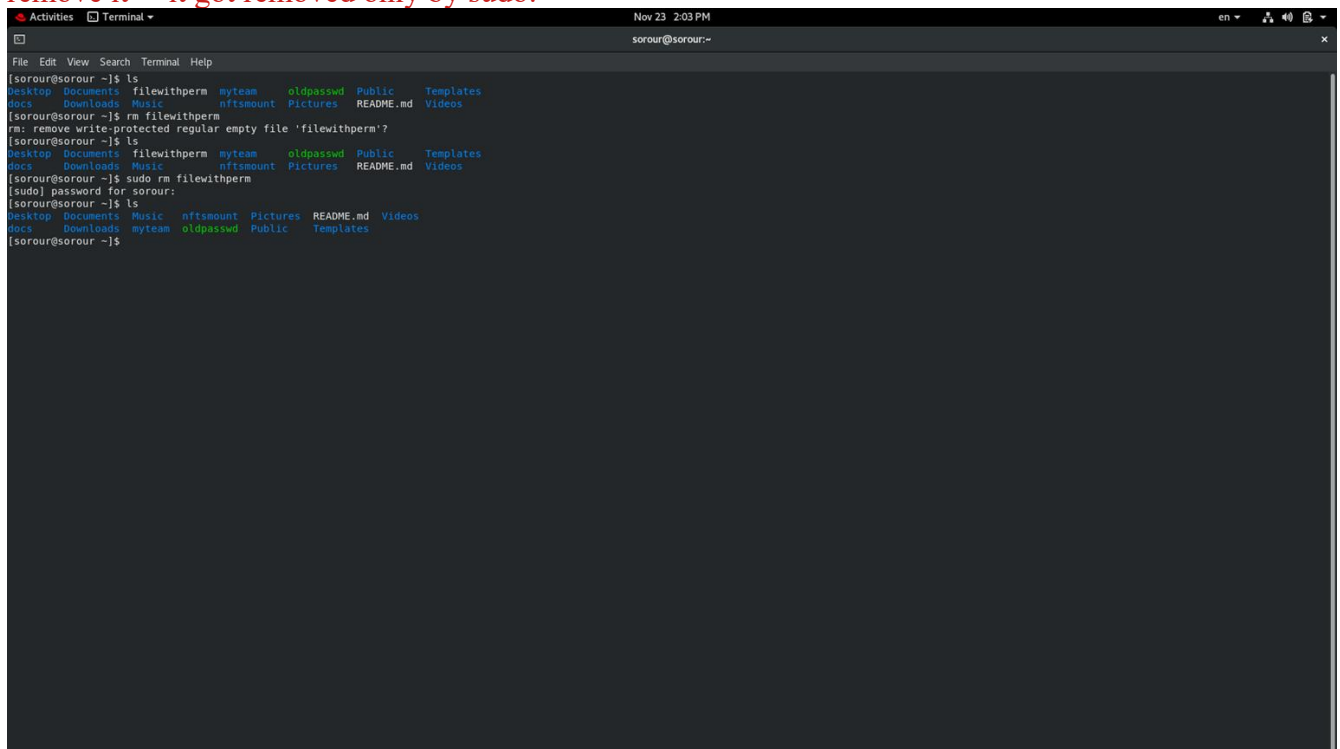
permission → 420

18. Create a file with permission 444. Try to edit in it and to remove it? Note what happened.

Edit → read only:



remove it → it got removed only by sudo:



19. What is the difference between the “x” permission for a file and for a directory?

“x” permission for a file → execute the executable file.  
and for a directory → open the folder