

RHSA 2 - LAB 2

1. Using the useradd command, add accounts for the following users in your system: user1, user2, user3, user4, user5, user6 and user7. Remember to give each user a password.

```
smabrouk@localhost:etc/hosts
File Edit View Search Terminal Help
Salma >> tail /etc/passwd
gnome-initial-setup:x:975:975:./run/gnome-initial-setup:/sbin/nologin
tcpdump:x:72:72:./sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/ssh:/sbin/nologin
smabrouk:x:1000:1000:Salma Mabrouk:/home/smabrouk:/bin/bash
islam:x:1001:1001:Islam Askar:/home/islam:/bin/bash
mailnull:x:47:47:./var/spool/mqueue:/sbin/nologin
smmsp:x:51:51:./var/spool/mqueue:/sbin/nologin
postfix:x:89:89:./var/spool/postfix:/sbin/nologin
apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin
nginx:x:974:974:Nginx web server:/var/lib/nginx:/sbin/nologin
Salma >>
```

2. Using the groupadd command, add the following groups to your system.
Group sales hr web
GID 10000 10001 10002

```
Activities Terminal ▾ Dec 24 01:30 •
smabrouk@localhost:etc/hosts
File Edit View Search Terminal Help
Salma >> tail /etc/group
slocate:x:21:
smabrouk:x:1000:
islam:x:1001:
pgroup:x:30000:islam
mailnull:x:47:
smmsp:x:51:
postdrop:x:90:
postfix:x:89:
apache:x:48:
nginx:x:974:
Salma >>
```

Why should you set GID in this manner instead of allowing the system to set the GID by default?

because the system will generate an incremental number not starting from 10000

3. Using the usermod command to add user1 and user2 to the sales auxiliary group, user3 and user4 to the hr auxiliary group. User5 and user6 to web auxiliary group. And add user7 to all auxiliary groups

```
smabrouk@localhost:etc/hosts
File Edit View Search Terminal Help
Salma >> sudo usermod -aG sales user1
Salma >> sudo usermod -aG sales user2
Salma >> sudo usermod -aG hr user3
Salma >> sudo usermod -aG hr user4
Salma >> sudo usermod -aG web user5
Salma >> sudo usermod -aG web user6
Salma >> sudo usermod -aG sales,hr,web user7
usermod: group 'hr,web' does not exist
Salma >> sudo usermod -aG sales,hr,web user7
Salma >> tail /etc/groups
tail: cannot open '/etc/groups' for reading: No such file or directory
Salma >> tail /etc/group
sales:x:30001:user1,user2,user7
user1:x:1002:
user2:x:1003:
hr:x:30002:user3,user4,user7
user3:x:1004:
user4:x:1005:
web:x:30003:user5,user6,user7
user5:x:1006:
user6:x:1007:
user7:x:1008:
Salma >>
```

4. Login as each user and use id command to verify that they are in the appropriate groups. How else might you verify this information?

```
smabrouk@localhost:/etc/hosts
File Edit View Search Terminal Help

Salma >> sudo passwd user1
Changing password for user user1.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user2
Changing password for user user2.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user3
Changing password for user user3.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user4
Changing password for user user4.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
Salma >> sudo passwd user4
Changing password for user user4.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user5
Changing password for user user5.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user6
Changing password for user user6.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >> sudo passwd user7
Changing password for user user7.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
Salma >>
```

```
user7@localhost:~
File Edit View Search Terminal Help

Salma >> su - user1
Password:
[user1@localhost ~]$ id
uid=1002(user1) gid=1002(user1),30001(sales) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user1@localhost ~]$ su - user2
Password:
[user2@localhost ~]$ id
uid=1003(user2) gid=1003(user2),30001(sales) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user2@localhost ~]$ su - user3
Password:
[user3@localhost ~]$ id
uid=1004(user3) gid=1004(user3),30002(hr) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user3@localhost ~]$ su - user4
Password:
[user4@localhost ~]$ id
uid=1005(user4) gid=1005(user4),30002(hr) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user4@localhost ~]$ su - user5
Password:
[user5@localhost ~]$ id
uid=1006(user5) gid=1006(user5),30003(web) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user5@localhost ~]$ su - user6
Password:
[user6@localhost ~]$ id
uid=1007(user6) gid=1007(user6),30003(web) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user6@localhost ~]$ su - user7
Password:
[user7@localhost ~]$ id
uid=1008(user7) gid=1008(user7),30001(sales),30002(hr),30003(web) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[user7@localhost ~]$
```

5. Create a directory called /depts with a sales, hr, and web directory within the /depts directory.

```
smabrouk@localhost:~/depts
File Edit View Search Terminal Help

Salma >> mkdir -p depts/{sales,hr,web}
Salma >> cd depts
Salma >> ls
hr sales web
Salma >>
```

- Using the `chgrp` command, set the group ownership of each directory to the group with the matching name.

```
smabrouk@localhost:~/depts
Salma >> sudo chgrp hr hr
Salma >> sudo chgrp sales sales
Salma >> sudo chgrp web web
Salma >> pwd
/home/smabrouk/depts
Salma >>
```

- Set the permissions on the `/depts` directory to `755`, and each subdirectory to `770`.

```
smabrouk@localhost:~/depts
Salma >> chmod 755 depts
Salma >> cd depts
Salma >> chmod 755 sales hr web
Salma >> ls -l
total 0
drwxr-xr-x. 2 smabrouk hr    6 Dec 24 01:46 hr
drwxr-xr-x. 2 smabrouk sales 6 Dec 24 01:46 sales
drwxr-xr-x. 2 smabrouk web   6 Dec 24 01:46 web
Salma >>
```

- Set the set-gid bit on each departmental directory

```
smabrouk@localhost:~/depts
Salma >> chmod g+s hr
Salma >> chmod g+s sales
Salma >> chmod g+s web
Salma >>
```

- Use the `su` command to switch to the `user2` account and attempt the following commands:
`touch /depts/sales/user2.txt`
`touch /depts/hr/ user2.txt`
`touch /depts/web/ user2.txt`
Which of these commands succeeded and which failed? What is the group ownership of the files that were created?

Failed as he doesn't have the ownership

- Configure `sudoers` file to allow `user3` and `user4` to use `/bin/mount` and `/bin/umount` commands, while allowing `user5` only to use `fdisk` command.

```
sudo visudo
user3 ALL=(ALL) !ALL, /bin/mount, /bin/umount
user4 ALL=(ALL) !ALL, /bin/mount, /bin/umount
user5 ALL=(ALL) !ALL, /sbin/fdisk
```

11. Login by user3 and try to unmount /boot.

sudo umount /dev/boot

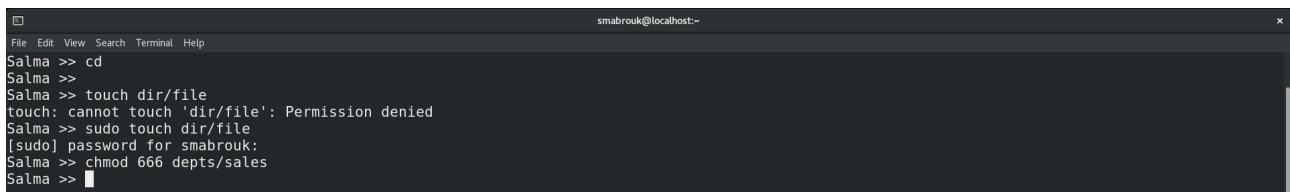
12. Login by user4 and remount /boot. Also try to view the partition table using fdisk.

fdisk /dev/boot

13. Create a directory with permissions rwxrwx---, grant a second group (sales) r-x permissions

mkdir dir1
chmod 770 dir1
setfacl -m g:sales:rx ~/dir1

14. create a file on that directory and grant read and write to a second group (sales)

A terminal window titled 'smabrouk@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
Salma >> cd
Salma >>
Salma >> touch dir/file
touch: cannot touch 'dir/file': Permission denied
Salma >> sudo touch dir/file
[sudo] password for smabrouk:
Salma >> chmod 666 depts/sales
Salma >>
```

