

## Lab 5

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.
2. Using the `groupadd` command, add the following groups to your system.

Group	GID
sales	10000
hr	10001
web	10002

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

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
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?
5. Create a directory called `/depts` with a sales, hr, and web directory within the `/depts` directory.
6. Using the `chgrp` command, set the group ownership of each directory to the group with the matching name
7. Set the permissions on the `/depts` directory to `755`, and each subdirectory to `770`
8. Set the set-gid bit on each departmental directory
9. 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?

10. Configure `sudoers` file to allow `user3` and `user4` to use `/bin/mount` and `/bin/umount` commands, while allowing `user5` only to use `fdisk` command.
11. Login by `user3` and try to unmount `/boot`.
12. Login by `user4` and remount `/boot`. Also try to view the partition table using `fdisk`.
13. Create a directory with permissions `rwxrwx---`, grant a second group (sales) `r-x` permissions
14. Create a file on that directory and grant read and write to a second group (sales)
15. set the the owning group as the owning group of any newly created file in that directory.
16. Grant your colleagues a collective directory called `/opt/research`, where they can store generated research results. Only members of group `profs` and `grads` should be able to create new files in the directory, and new file should have the following properties:
  - a. the directory should be owned by root
  - b. new files should be group owned by group `grads`
  - c. group `profs` should automatically have read/write access to new files
  - d. group `interns` should automatically have read only access to new files
  - e. other users should not be able to access the directory and its contents at all.
17. Display your MAC address by 2 different ways.
18. Display the network settings of all active interfaces.
19. Display the network setting of all interfaces both active inactive.
20. Bring your interface down.
21. Configure your network card to have static IP.
22. Bring your interface up.
23. Verify your network setting using `ifconfig` command

24. Configure your network card to have dynamic IP using network manager command.
25. Check using ifconfig then check its configuration file.
26. Reconfigure your network card using system-config-network utility to have static IP.
27. Configure your network card to have 3 IPs and check that they are all working using ifconfig command.
28. Change your host name in your global network file.