

### CIS133 – Homework 3 - Permissions

- All problems must be completed at the **command prompt**.
  - Number your answers with the respective problem number
- Always provide the exact command(s) used to complete the problem and, when requested, include each command's output. When copying your screen please copy only the command and its output; I don't want to see anything more.**
1. Check the permissions on the cis133 user's home folder. Answer each of the following questions :
    - a. What are the owner's permissions?
    - b. Who is the owner?
    - c. What are the group's permissions?
    - d. What group is assigned these permissions?
    - e. Who else can access this folder and what rights do they have?
    - f. Display the permissions of the cis133 user's home folder to confirm your answers to a thru d. (Include only the user's home folder in the output)
  2. Su to root and while logged in as root, create a directory in the cis133 user's home folder. Name it temp. Move into the folder and create a file named problem2.
    - a. Who owns the file?
    - b. What are the owner's permissions?
    - c. What group is assigned these permissions?
    - d. What are the group's permissions?
    - e. Display the permissions of the problem2 file to confirm your answers to b thru e. (Include only that file's permissions in the output.)
  3. Based on the permissions assigned to the problem2 file, should the cis133 user have write rights to this file? Explain your answer.
  4. Without changing the permissions on the problem2 file, configure the permissions such that the cis133 user has full rights to the problem2 file, any other files that exist in this folder and any files that are placed in this folder in the future. (hint: this can be done in one simple step)
    - a. How did you configure the permissions? Your answer must include an explanation and must also show the settings you applied.
    - b. Explain how you tested your results.
  5. Create a group named its. Make the 5 users created in homework #2 secondary members of this group.
    - a. Display the its group's membership as displayed in the /etc/group file.
  6. Create 5 more users using the same naming convention and settings as used in the 5 users you created in homework #2; these users should be 06 thru 10. The user's home folder permissions must be configured such that the owner has full rights and the group and others have none. These permissions must be configured at the time the user accounts are created. One command per user should be used to complete this problem.
    - a. What command(s) did you use to create the 07 user? (I will assume you used the same command for each of the other users)

- b. Display the last 12 lines of the passwd file.
  - c. Display the last 12 lines of the shadow file
  - d. Display the contents of the /home folder. Use the ls -l command so that I can see the details of the listing.
7. Create a group named staff. Make the 5 users created in question #6 secondary members of this group.
  - a. Display the staff group's membership as displayed in the /etc/group file.
8. Create two folders at the root of the drive; name one its and one staff. Set the permissions on each folder such that root and the respective department's group have full rights to the folder and no one else has access.
  - a. What command did you use to set the permissions on the its folder?
  - b. Display the folder's permissions.
  - c. What command did you use to set the permissions on the staff folder?
  - d. Display the folder's permissions.
9. Modify the permissions of the its folder. Configure them so that when a user stores a file or folder within this folder, the group assigned to the new file or folder matches that of the its folder. Test your results to confirm they worked.
  - a. What command did you use to set the permissions?
  - b. Display the its folder's permissions.
  - c. Explain how you tested your results.
  - d. Use the ls -l command to display the contents of the its folder (if you tested your results you should have files and/or folders within this folder).  
I need to see the permissions set on these files.
10. Modify the permissions of the staff folder. Configure them so that when a user stores a file or folder within this folder, the group assigned to the new file or folder matches that of the staff folder. Test your results to confirm they worked.
  - a. What command did you use to set the permissions?
  - b. Display the staff folder's permissions.
  - c. Explain how you tested your results.
  - d. Use the ls -l command to display the contents of the staff folder (if you tested your results you should have files and/or folders within this folder).  
I need to see the permissions set on these files.
11. Set the permissions on the 04 user's home folder such that he has full permissions and no one else has any access. Test your results.
  - a. Provide all commands used to complete this task.
  - b. Display the permissions set on the 04 user's home folder
  - c. Explain how you tested your results.
12. Create a directory at the root of the drive. Name it share. Configure the permissions on this folder such that anyone can create files in the folder, however any files created in the folder can only be renamed or deleted by the owner of that file. Test your results
  - a. What command did you use to set the permissions?
  - b. Display the share folder's permissions.
  - c. Explain how you tested your results.

13. Display the current umask setting.
  - a. What command did you use?
  - b. What are the current settings?
  
14. Execute the umask command that you would use so that when creating a new file the file's permissions would be 600.
  - a. What umask statement did you use?
  - b. How did you confirm your umask value was correct.
  
15. Execute the umask command that you would use so that when creating a new folder the folder's permissions would be 700.
  - a. What umask statement did you use?
  - b. How did you confirm your umask value was correct.
  
16. Close the terminal window and reopen it --- this should set the umask back to its original setting.
  - a. What is the new value of umask?
  - b. Explain how you would permanently change the umask setting for all users.
  - c. Explain how you would permanently change the umask setting for your 04 user.