

CSE 341 Homework Assignment 2

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Theme: Chapters 5-7

Due:

Sunday, 19-November-2023 by 23:59

Deliverables:

The following should be completed and submitted by the due date and time specified above. Submissions received after the deadline will be subject to the late policy described in the syllabus. Submit using MS Teams or in person in class.

Acceptable formats for the submissions include:

- Printed or neatly handwritten document (scanned)
- Microsoft Word, text, or PDF document
- Other similar methods

Grading Information:

This assignment is worth 100 points. Each task or question is worth 5 points unless noted otherwise.

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Problem Set (assume the current user has username {your last name}{your first name}):

1. What does the `id` command do? What does it show?
2. If I wanted to see the user information and password information for a user, in what two files would I look?
3. Explain the format of how passwords are stored. As an example, paste the password from the appropriate file for your user on your Linux system (You may use a screenshot of your screen when you view your password information).
4. Draw a UML class diagram representing how users and groups (primary and supplementary) are related. For full credit you must include all necessary relationships between the User class and Group class and each class you create must have at least three (3) attributes defined. (10 points)
5. Explain the similarities and differences between the following (10 points):

	su	su -	sudo	sudo -i
su	X			
su -		X		
sudo			X	
sudo -i				X

6. Write a list of commands to create a new user on your system with the userid "miles" and the password "Sp!derv3r5e". Then create a group named "netflix" and put the user you created into this group. Also put your own user into this group. (10 points)
7. Remove the user "uncleaaron" from the system and remove the home directory for this user.
8. Lock the account "miguel".
9. Explain how permissions are applied. Give an example of how a user could be not the owner of a file and yet be able to view a file that the owner could not. (10 points)

Using the following users and file information answer questions 11 - 15:

Users and their groups:

```
miles  miles, newyork, spiderman
gwen   gwen, newyork, spidergwen
miguel miguel, spiderman, villains
spot   spot, villains
```

File attributes:

```
drwx-wxr-x  miles      spiderman  spiderverse
-rw-r--r--  spot        spot       portal
-rwxrw----  gwen        spiderman  stacy
--wxrw--w-  miguel       villains   evilPlans
-r--r--r--  miles      newyork    nowonnetflix
```

10. List the users that can view the contents of the file "evilPlans".
11. List the users that can edit the file "stacy".
12. How could we change the permissions to allow anyone in the "villains" group to execute the "evilPlans" file?
13. List the users that can view a list of all files in the "spiderverse" directory.
14. List users that can delete the file "evilPlans".
15. What command is used to show the default permissions? Explain the value that is shown when you view the default permissions. (i.e. run the command on your system, state what the value is and explain what the numbers shown mean).
16. Show the command to change the default permissions to something where all levels have a different permission than before. Create a new file and show the result of running `ls -l` on this new file.