

**LAB**

**LINUX SYSTEM ADMINISTRATION**

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**Dr. Matthew Kisow**

VERSION 2

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**LAB:** LAB12-01

**OBJECTIVE**: The objective of this lab is to learn how to work with users and groups.

**INSTRUCTIONS**: These labs will test your ability to actively research how to perform a required action on a Linux operating system. All questions asked (below) should be included in a lab report. This lab report should be written in Microsoft Word and include a numbered list corresponding to the task (below). This list must include a clear screenshot of the command and its output. Please follow the instructions for submitting this assignment on Blackboard.

* You should be logged in as ***labuser1*** with the password ‘P@$$w0rd’
* You will change to the ***labuser2*** with the password ‘P@$$w0rd’
* You will change to the ***labuser3*** with the password ‘P@$$w0rd’
* You will create the ***labuser4*** account.
* You must be in the /labs/CH12 folder to complete this lab.

**LEARNING ABOUT USERS**

1. Using the ***getent*** command, interrogate the *passwd* database for ***labuser1***.
   1. What did you notice?
2. Using the ***getent*** command, interrogate the *passwd* database for ***labuser2*** and ***labuser3***.
   1. What did you notice?
   2. What was different about each of these accounts?
3. Using the ***adduser***,[[1]](#footnote-2) and ***usermod***[[2]](#footnote-3) command(s), create a new user:
   1. The username must be ***labuser4***.
   2. Set the real name or comment to ***Lab User 4***.
   3. The user’s primary group must be ***labusers1***.
   4. The user must be a member of the ***sudo*** group.
   5. Set the login shell to ***/bin/false***.
   6. The user must have a home directory set to ***/home/labuser4***
   7. Set the password to ***P@$$w0rd***.
4. Using the ***su*** command, switch to the ***labuser4*** account.
   1. What happened and why?
5. Using the ***usermod***[[3]](#footnote-4) command, update the ***labuser4*** shell from /bin/false to /bin/bash.
6. Using the ***su*** command, switch to the ***labuser4*** account.
   1. What happened and why?

**LOGIN MESSAGE**

1. Using the ***vim***[[4]](#footnote-5) editor, create an ***/etc/motd*** file. Place the following line of text in that file: "*This is a private system used for the Linux System Administration CIT-220 class."*
   1. Write and exit that file.

**NOTE**: The Message of the Day (motd) file is excellent for letting users who can successfully log in to a system know the current system status. A security banner (like the one we created above) should typically go in the ***/etc/issue*** file.

1. Log out of the ***labuser1*** account.
2. Log in to the ***labuser1*** account.
   1. What did you notice?

**LEARNING ABOUT GROUPS**

1. Using the ***groupadd***[[5]](#footnote-6) *and* ***usermod***[[6]](#footnote-7) command(s), create a new group:
   1. Name the group ***finance***
   2. Add users ***labuser1***, ***labuser2***, and ***labuser4*** to this group.
2. In the ***CH12*** folder, create a directory called ***finance***.
   1. Change the ownership[[7]](#footnote-8) of the ***finance*** directory with ***labuser4*** as the owner and ***finance*** as the group.
   2. Change the permissions[[8]](#footnote-9) of the finance folder to 770
3. Using the ***su*** command, switch to the ***labuser4*** account.
   1. Create a file called ***budget*** in the finance folder.
   2. What permissions does this file have?
   3. Change the permissions[[9]](#footnote-10) of the budget file to 660
   4. Who is the owner of the budget file?
   5. Exit from the ***labuser4*** account.
4. Using the ***su*** command, switch to the ***labuser2*** account.
   1. Create a file called ***accounts-payable*** in the finance folder.
   2. What permissions does this file have?
   3. Who is the owner of the ***budget*** file?
   4. Add $23,565 to the ***budget*** file using the ***vim*** editor, then exit from ***vim***.
   5. Why were you able to modify this file?
   6. Exit from the ***labuser2*** account
5. Using the ***su*** command, switch to the ***labuser3*** account.
   1. Change to the ***finance*** folder.
   2. Why could you not change into the folder?
   3. Exit from the ***labuser3*** account

**CHANGING PASSWORDS**

1. Using the ***passwd***[[10]](#footnote-11) command, change the password of ***labuser4*** to ‘pAsswOrd’.
2. Using the ***su*** command, switch to the ***labuser4*** account.
   1. Did the new password work?
   2. From the ***labuser4*** account, change the password back to P@$$w0rd.
   3. Exit from the ***labuser4*** account.

**PASSWORD AGE**

1. Using the ***chage***[[11]](#footnote-12) command, list the password ages for ***labuser1***, ***labuser2***, ***labuser3,*** and ***labuser4***.
   1. What do you notice?

**WHO ARE YOU?**

1. Using the ***whoami*** command, discover who you are.
2. Using the ***w*** command, discover whom you're logged in as.
3. Using the ***su*** command, switch to the ***labuser4*** account.
   1. Use the ***w*** command.
   2. What do you see?

1. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-2)
2. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-3)
3. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-4)
4. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-5)
5. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-6)
6. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-7)
7. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-8)
8. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-9)
9. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-10)
10. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-11)
11. You will have to use the ***sudo*** command for these steps. [↑](#footnote-ref-12)