

LINUX ESSENTIALS FOR CYBERSECURITY



Linux Essentials for Cybersecurity Lab Manual

William "Bo" Rothwell

Managing User Accounts

These labs should be performed on the Ubuntu operating system that you installed in Chapter 1, "Distributions and Key Components." Before you begin this lab, log in to the student account that you created during the installation process.

Lab 7.1 Managing User Accounts

STEP 1.	Open a terminal window.
STEP 2.	Execute the correct command to display user account information (including the login shell and home directory) for the bin account.
STEP 3.	Execute the correct command to display user password information (including the encrypted password and password aging) for the bin account.
STEP 4.	The command in step 3 should have failed. Execute the correct su command to change your account so the command from step 3 will be successful when executed.
STEP 5.	Create a new user named jake and explicitly use options to create the home directory /home/jake for this user.
STEP 6.	Set a password for the jake user to a password of your choosing.
STEP 7.	Run the correct command to display the default values used when a new account is created.
STEP 8.	Using the less command, display the file that contains the password aging defaults.
STEP 9.	Using the less command, display the file that contains the default login shell.
STEP 10.	Delete the jake user and his home directory, using a single command.

Lab 7.2 Securing User Accounts

WARNING With Ubuntu, some of the options for user account commands are different from the standard options provided in the book. For this lab you need to explore the documentation for the specific Ubuntu distro you installed to discover the correct answer.

Scenario: Create a user account named sue with the following restrictions:

- The account should have a strong, randomly generated password (consider using https://passwordsgenerator.net or a similar site to create the password).
- The user should be a secondary member of the games group.
- The user's home directory should be explicitly set as /home/sue.
- The user should be forced to change her password every 60 days.
- The user should not be allowed to change her password for 2 days after it has been set.
- The password warning field should be set to 10.
- The password inactivity period should be set to 60.
- The account should be set to expire on January 1, 2025.
- This user (and all others) should have a minimum password length of 12 characters.

Lab 7.3 Configuring sudo

Scenario: Allow the sue user the ability to use the apt-get command. Verify this ability by installing the joe package as the sue user.		

Chapter 8

Develop an Account Security Policy

These labs should be performed on the Kali operating system that you installed in Chapter 1, "Distributions and Key Components." Before you begin this lab, log in to the student account that you created during the installation process.

Lab 8.1 Testing the Security of Accounts

Scenario: Create five user accounts, with a different password for each account. Make some of the passwords very simple, such as simple words, and some of the passwords more complex. Then run the johnny password attack tool on these new accounts and see which passwords were compromised by the tool.