

CS105 UNIX operating Systems

Key Graded Assignment #2: Case Project

This assignment supports the following course outcomes:

- Execute UNIX/Linux commands and use command-line editing to create, view, edit, and manipulate files.
- Manage processes using system administration utilities

Assignment Overview

This assignment is a case project that will enable you to put to work what you have learned in this course to apply UNIX/Linux solutions to specific issues. For this assignment, place yourself in the shoes of a newly hired computer support specialist.

A company, Outdoor Adventures, manufactures backpacks sold in sporting goods, mountaineering, and outdoor equipment stores. Outdoor Adventures also maintains a Web site for direct sales to customers.

Outdoor Adventures has 17 total employees, each has a desktop computer with Linux installed. The company has two Linux servers: one for accounting and business programs and one configured as a Web server. All of the Linux computers are set up for wireless network access. The company has established a policy to use the Bash shell for consistent use and support of its computers.

Outdoor Adventures is working to make its Linux computing environment more productive through the use of new applications. As part of this effort, you have been assigned several tasks. The tasks are as follows:

1. Set up a directory/file system
2. Set up file security
3. Create instructions for deleting/copying files
4. Create customer files
5. Develop command-line commands

Deliverables

Upon completion of this case project, you should submit the following as directed by your instructor (see the Content Grading Rubric for specific details):

1. Set up a directory/file system for a new accountant to house the following items:
 - The program files for the accounting system
 - Data files for accounts receivable, accounts payable and general ledger
 - Business reports
 - Spreadsheet files
 - Word processed files

Create a text or word processed written document that explains the design. Also, provide a diagram of the directory/file system for visual understanding.

2. Set up file security so that only the accountant and the company owners can access the file system previously created. Create a written document with step-by-step instructions for the employee that describes how to create additional subdirectories they may need and how to configure the appropriate security. Include in your document the general steps for removing an unused directory.
3. Create a step-by-step set of instructions to explain how to accomplish deleting subdirectories and their contents, and copying files from one area to another.
4. Create a customers file that contains data showing several customers' names, addresses, telephone numbers, and type of backpack purchased (use fictional data).
5. Develop several command-line commands that can be used in the future to manipulate the data in the customers file. Determine which specific commands (and command options) to use and record them in a document. Generate an example of the output of each command and include the example output in the document you create. Use separate commands (not in a script) to do the following:
 - Set up security so that only one specific employee can access the customers file.
 - Display the contents of the customers file.
 - Examine the customers and backpacks files for duplicate lines (to ensure better data).
 - Search the contents of the customers file for customers with a specific last name.
 - Sort the customers file by the customer's last name.
 - Display the customers who have only purchased a specific type of backpack.

Grading

The following grading rubrics will be used to evaluate your assignment. Your instructor will provide you with these rubrics along with this assignment handout.

Content Grading Rubric - 100% of assignment grade

Resources

Course textbook