Links, Redirection, & Permissions

Creating Links (60 pts)

Use the "$" prompt under each question to write down the command you used to successfully execute each task. Do all of the work below in a new empty directory in your home directory.

1. Use the **touch** command to create a file named **importantfile** in the lab directory.

   $

2. Create a hardlink named **myhl** to the file named **importantfile**.

   $

3. Create a softlink named **mysl** to the file named **importantfile**.

   $

4. What is the **ls –l** information for **myhl**, **mysl**, and **importantfile**?

   a.

   b.

   c.

5. Create another hardlink named **myhl2** to the file named **importantfile.**

   $

6. Now what is the **ls –l** information for **myhl**, **mysl**, and **importantfile**? Just indicate what has changed since number 4. Why?

7. Use the chmod command to change the permissions of **importantfile** so that only the owner of the file can read and write the file.

   $

8. Now what is the **ls –l** information for **myhl**, **mysl**, and **importantfile**? Just indicate what has changed since number 6. Why?

Redirection, Piping, Find, & Your Shell (40 pts)

1. Do an **ls –l** of the /etc directory and redirect all of the output to a file called **what_i_saw_in_etc**.

   $

2. Do an **ls –l** of the /etc directory again and again redirect the output to a file called **etcData** but this time use grep to only output those files which contain the letter x.

   $

3. Use the **find** command to search for file names that end with the string **conf** in the **/etc** directory. You should receive a bunch of errors. Redirect **ONLY** the errors to a file called **myfinderrors**. We have yet to discuss the find command. Can you use the man page or another resource to figure out how to complete this question?

   $

4. How many lines are in the file **/etc/passwd**? What command will you use for this exercise? Do you need to use a pipe?

   $

5. Type in the command **set** with no options. A LOT of data should scroll by on your screen. Use the **set** command to find all of the directories in your "PATH." In other words, find the lines of text in this data dump that have the word PATH in it. You will get a lot of data and you will need to pipe to another command to filter out just what you want (possibly using grep or another filter). Please note that PATH is capitalized. Paste or type those directories below. You will get a bunch of data dumped to the terminal so see if you can dig through it to get the answer. If you have questions post to the DB.

   What command did you use to get your answer?

   $

   What directories were in your PATH?

   What do you think these directories are used for? Basically, what is your PATH? If you can't determine their purpose use Google or reference the book. You may want to answer this question first to help answer the items above.