Linux Lab (Lab 4) Worksheet   **Name** __Nikesh Khanal__

                                      Section   CSE 1106-002
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Please complete the following steps to complete the lab:

1. Make sure you have read the information in the assignment to understand what commands to issue.

2. Use your RPi 4b that you have configured (not one you are sharing with another student). <u>In other words, your RPi should have a hostname that matches your NetID.</u>

3. Your RPi should contain all your files from Labs 2 and 3. <u>If not, copy them back to your RPi for the next steps.</u>

Write the directory name containing your Lab 2 and 3 files here:

_____labs_____

4. Issue the appropriate commands to navigate to the directory that contains your working files from Labs 2 and 3. List the contents of this directory on the console.

5. Take a screenshot of your terminal window by pressing "Print Screen" on your keyboard or using the command `scrot`. Rename the screenshot created to: `lastname_netid_lab4_lab2-3_files.png`

6. While still in the directory that contains your files from Labs 2 and 3, redirect the contents of this directory to a file named: `lastname_netid_lab4_lab2-3_files.txt`

7. Using two different methods, issue the appropriate commands to navigate to your home directory. List the contents of this directory on the console.

8. Take a screenshot of your terminal window by pressing "Print Screen" on your keyboard or using the command `scrot`. It should capture the output of both commands unless your home directory is too large. Rename the screenshot created to: `lastname_netid_lab4_home.png`

9. Use a text editor to create a file called `lastname_netid_lab4_names.txt` in the ~/Documents directory. Add the first names of 5 people in this file in random alphabetical order and save the file. Make sure at least 2 of the names contain the capital letter "A".

10. Print out the contents of the file using the `cat` command.

11. Pipe the output of `cat` to `sort` and redirect the contents to a file called `lastname_netid_lab4_names_sorted.txt`

Verify the file only contains names in alphabetical order.

12. Pipe the output of `cat` to `grep` filtering out only the names containing the letter "A" and redirect the contents to a file called `lastname_netid_lab4_names3.txt`

Verify the file only contains names containing a capital "A". Rename the file saved above to:

`lastname_netid_lab4_names_grep.txt`

13. Connect your RPi 4b to the network in the lab and issue the `ip -4 a` command. Your RPi 4b will be assigned an IPv4 address automatically when you connect it to the network using a service called DHCP.

14. Take a screenshot of your terminal window by pressing "Print Screen" on your keyboard or using the command `scrot`. It should capture the commands of steps 10-13. Rename the screenshot created to:
`lastname_netid_lab4_sort_grep_ip.png`

15. Upload the following items to canvas:

    - This worksheet with your name and section number completed
    - The 3 screenshots listed above
    - The 5 text files listed above

Thank you for attending the lab.

In the next lab, we will explore software repositories.

- Professors Losh and Davis

Lab 4 Rubric

Assignment:
-40: Hostname something other than student's NetID
-30: Screenshots taken without using 'screenshot' function of OS
        (i.e., using a phone camera)
-20: Image not in .png file format.
-10: Wrong file name