Bash/Unix Assignment: Test Your Skills!

Use your Bash/Unix Cheat Sheet to do the following steps. Any commands you will need that do not exist on your cheat sheet are given to you. Every other command that you will need you are expected to know. Be sure to write down answers to all the questions in **bold**

1) Make a directory called "Astro192" and go into that directory

2) What is the path to your directory?

3) Get the file `StarData.tar.gz`. It is located at:

http://www.astro.washington.edu/groups/premap/diy/po/StarData.tar.gz

4) Unpack the files from the tar file. You should now have a directory called "StarData" with several files in it.

5) Move into the StarData directory. **How many files do you have? Which file is the largest? What command did you use to figure that out?**

6) Make a copy of `StarHeader.txt` called `junk.dat`. Do you still have a copy of StarHeader.txt? You <u>should</u>!

7) Change the name of `junk.dat` to `junque.dat`. Do you still have a copy of junk.dat? you <u>should</u> <u>not</u>!

8) Delete `junque.dat`

9) Look at the data in `BrightStars.dat`. **How many columns are there? What command did you use to do this?**

10) Look at what is inside `StarHeader.txt`. This tells you what the columns in BrightStars.dat mean.

11) Write your name into a file called small.dat. **How did you do this?**

12) Write the first 100 lines of `BrightStars.dat` into `small.dat`, making it <u>overwrite</u> the line with your name. **How did you do this?**

13) <u>Append </u>`small.dat` with the last 10 lines of `Brightstars.dat`. **How did you do this?**

14) One can sort output from a file using the `sort` command.

        % sort -n -k [number] [file] | more

The above command will print out the lines in [file] such that the numbers in column [number] are in numerical order. **Use this command to find the Star (identified with the Catalog Number) in `small.dat` with the largest Vmag. Now find the star with the smallest Vmag. How did you do this?**

[Hint: careful with the column counts! Every space in the file represents a new column to `sort`... but that isn't the case when you read in the header file with the column names! Be careful with the RA and Dec columns... `sort` sees each one as *3 columns*]