ULI101 Redirection / Issuing Multiple Linux Commands

When answering Linux command questions on this side or the back side of this page, refer to the following Inverted Tree diagram. The **linux** directory is contained in your home directory. Assume that you just logged into your **Matrix** account. Directories are underlined.

```
linux
|-- content
|   |-- assignments
|   `-- tests
|       |-- .answers.txt
|       `-- questions.txt
|-- projects
```

Questions:

1. **Write a single Linux command to provide a detailed listing of all files in the /bin directory, sending the output to a file called listing.txt in the "projects" directory. (append output to existing file and use a relative pathname)**

   ls -l /bin >> projects/listing.txt

2. **Write a single Linux command to redirect the stderr from the command: cat a.txt b.txt c.txt to a file called error.txt contained in the "assignments" directory. (overwrite previous file's contents and use only relative pathnames)**

   cat a.txt b.txt c.txt 2> assignments/error.txt

3. **Write a single Linux command: cat ~/a.txt ~/b.txt ~/c.txt and redirect stdout to a file called "good.txt" to the "tests" directory and stderr to a file called "bad.txt" to the "tests" directory. (overwrite previous contents for both files and use only relative-to-home pathnames)**

   cat ~/a.txt ~/b.txt ~/c.txt > tests/good.txt 2> tests/bad.txt

4. **Write a single Linux command to redirect the stdout from the command: cat a.txt b.txt c.txt to a file called wrong.txt contained in the "projects" directory and throw-out any standard error messages so they don't appear on the screen. (append output to existing file and use only relative pathnames)**

   cat a.txt b.txt c.txt >> projects/wrong.txt

5. **Write a single Linux pipeline command to display a detailed listing of the "projects "directory but pause one screen at a time to view and navigate through all of the directory contents.**

Use a relative-to-home pathname.

ls -l ~/projects | more

6. **Write a single Linux pipeline command to display the sorted contents (in reverse alphabetical order) of the "linux" directory. Use a relative pathname.**

   ls linux | sort -r

7. **Assume that the text file called ".answers.txt" contains 10 lines. Write a single Linux pipeline command to only displays lines 5 through 8 for this file. Use only relative pathnames.**

   1
   2
   3
   4
   5
   6
   7
   8
   9
   10

   head -8 linux/content/tests/.answers.txt | tail -4

8. **Write a single Linux pipeline command to only display the contents of the "assignments" directory whose filenames match the pattern "murray" (both upper or lowercase). Use an absolute pathname.**
   ls /home/murray.saul/linux/content/assignments | grep -i murray

9. **Write a single Linux pipeline command to display the number of characters contained in the file called ".answers.txt". Use a relative-to-home pathname.**

   cat ~murray.saul/linux/content/tests/.answers.txt | wc -c

10. **Write a single Linux pipeline command to display the number of lines contained in the file called "questions.txt". Use a relative pathname.**

cat linux/content/tests/questions.txt | wc -l

11. **Write a single Linux pipeline command to display only the first 10 characters of each filename contained in your current directory. Also, there is will be a lot of output, so also pause at each screenful so you can navigate throughout the display contents. Use a relative pathname.**
    ls | cut -c1-10 | more