

CS 279 - Week 8 Lab Exercise - 10-14-2014

Deadline

Due by the end of lab on 10-14-2014.

How to submit

Submit your files for this lab using `~ah270/279submit` on nrs-labs, with a homework number of 88

Purpose

Practice with bash if-statements and a smattering of types of tests

Important notes

- You are expected to work in **pairs** for this lab; this means **two** students at **one** computer and **one** keyboard, one typing, and the other suggesting what to type. Both are expected to be engaged and involved in what is going on, and **each** file that you create should have **both** of your names in it.
Students who do not work in pairs may not receive credit for the lab exercise (although if an odd number of students requires it, there may be one authorized trio -- the same guidelines apply).
- If you have a question during lab, and I am helping another pair, add one or both of your names to the "Next:" list on the board, and I will get to you as soon as I can.

Problems

Problem 1

Create a shell script `picky-bkp.sh` that meets the following specifications:

- include a descriptive opening comment block that includes both of your names and today's date
- it expects exactly three command line arguments -- if it gets any different quantity from that, it should:
 - complain in a descriptive error message that includes the name of this script and the faulty number of arguments
 - and then exit with an exit status of 1.
- it expects the first two arguments to be regular files that are readable by the user -- if either or both are not, it should:
 - complain in a descriptive error message that includes the name of this script
 - and then exit with an exit status of 2.

- it expects the third argument to be a directory that is readable and executable by the user -- if it is not, it should:
 - complain in a descriptive error message that includes the name of this script
 - and then exit with an exit status of 3.
- and if you get through all of the above gauntlets, it should make copies of the first two argument files in the third argument directory, EXCEPT with each of their names preceded by BKP- (that is, for argument `pig.txt`, it would make a copy in the third argument directory with the name `BKP-pig.txt`).
 - It can cheerfully overwrite any previous backup copy already in that directory.

Submit your resulting `picky-bkp.sh`

Problem 2

Consider: what is a regular expression that will match a blank line in a file?

Create a shell script `strip-blank-lines.sh` that meets the following specifications:

- includes a descriptive opening comment block that includes both of your names and today's date
- it expects exactly one command line argument, expected to be a regular, readable file -- it should complain descriptively and exit with a non-zero exit status if this is not the case
- then, it creates a file `stripped-` followed by the name of the input file that contains the same contents as the input file EXCEPT with any blank lines stripped out
 - (or, if you prefer, it copies to the new file ONLY non-blank lines from the original input file)
 - If called with argument `pig.txt`, then, it would create output file `stripped-pig.txt`

Submit your resulting `strip-blank-lines.sh`