

CSI 3336 Systems Programming Project 4

Folder Merge

Write a shell script named **merge.sh**. This program will take three path names as required command-line arguments, a, b, and c. Arguments a and b are source directories. They should be paths to existing directories. If not, the program will print an error message and exit. The c argument is a destination directory and should be a path to a new directory that does not exist. If c already exists, your program should print an error message and exit.

Your merge program will create the destination directory c and copy all files from both a and b directories into c. If two files have the same name, by default your program should keep just the newer file.

Your program will support two optional command-line arguments. If -keep is given, your program should keep both files in the event of a name collision. You should rename the older file to filename.old (where filename is the name of the files with the collision). If filename.old already exists, your program should print an error message and exit.

If the -larger option is given, your program should favor the larger files instead of the newer files in the event of a name collision. If both -larger and -keep are given, you should use the .small extension to resolve name collisions.

Your program should be able to handle its command-line options anywhere on the command-line. For example, the user should be able to run your program as any of the following:

```
merge.sh -keep ~/tmp/search ~/tmp/found ../temp
```

```
merge.sh src1 src2 src
```

```
merge.sh ./docs -larger ~/tmp/docs -keep everything
```

To help organize your code, use two or more functions in your program.

When you are done, submit an electronic copy of your program (via a submission script) and turn in a printout on the day it is due.