Homework Assignment # 3

Due Tuesday, March 3, 2009

Perform each of the following using the script command to demonstrate your program results:

1. Write a C shell script that prints the Fibonacci sequence.

   This script should take one argument that specifies the number of elements to print.

   Your program must verify the command line argument is numeric and between 1 and 20.

   Note: The first 2 elements of the sequence are "0" and "1". The nth element in the sequence is determined by adding the n-2 element to the n-1 element.

   Here is a portion of the Fibonacci sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21

2. Write a C-shell script that will rename all files in a directory to filenames with all lowercase letters.

   This script will take the directory name as a command line argument. As always, the script will validate the number of command line arguments, and that the directory name given is a valid directory.

   If renaming a file will overwrite an existing file, then the script ".dup1" extension. If a file with that name followed by ".dup1" already exists, then use ".dup2", etc.

3. Write a Korn shell script called **junk**. **Junk** is an alternative for the **rm** utility. Rather than removing files, it moves them into the subdirectory ".junk" in your home directory.

   If ".junk" does not exist, it is automatically created.

   The **–l** option lists the current contents of the ".junk" directory.
   The **–p** option purges ".junk".

   The usage statement for junk is as follows: **junk –lp [filename]***

   Note: Your program must be able to take an arbritary number of filenames.

   Hint: You must use getopts to solve this problem. Also note, your script should be able to process zero or more filenames following the options.