1. Turn in the assignment by writing a short paragraph explaining what you see when you type "ls -al" in a directory with several files in it, explain what the permission bits mean, and how to modify them with chmod.

When you type “ls -al” for a directory with several files in it, the terminal will list all files in that directory (including hidden ones) in a long format. Long format includes info such as permissions, owners, date last accessed, etc. The permission bits at the start show who can read, write and execute that file. The very first digit also indicates whether it is a directory or not (“d” for directory, “-” for file). The next three digits indicate read, write, and execute permissions for the owner of the file. The next three indicate read, write, and execute permissions for the group owner of the file. The last three indicate read, write, and execute permissions for all other users. Using the command “chmod ### *[filename]*”, we can change the access rights using three numbers. Each number corresponds with the three digits (rwx) that occur for each user. I.e., the first number will change read, write, and execute permissions for the owner of the file, the second for the group owner, and the third for all other users. These numbers work according to the binary system. So “000” (or 0) is the same as “---”, while “111” (or 7) is the same as “rwx”. Using the command “chmod 700 file\_name.txt” would give the owner read, write, and execute permissions, but would exclude those permissions from everyone else.