

## CSC209H Worksheet: File Permissions

1. Consider the following listing of files as produced by `ls -lF`:

```
-rwx----- 1 reid instrs 418 Jan 16 09:23 day.txt*
-rw----- 1 reid instrs 13473 Jan 16 09:23 e1.pdf
drwxr-xr-x 2 reid instrs 4096 Jan 16 09:23 emptydir/
-rw-rw-rw- 1 reid instrs 835 Jan 16 09:23 student_list.txt
-rwxr-xr-x 1 reid instrs 9742 Jan 16 09:23 syscalls*
-rw-r--r-- 1 reid instrs 197 Jan 16 09:23 syscalls.c
drwxr-xr-x 2 reid instrs 4096 Jan 16 09:25 test/
```

(a) Which regular files can be read by everyone?

*student\_list.txt*  
*syscalls*  
*syscalls.c*

*A "regular" file is simply a file that contains data*  
*An executable file is a regular file*  
*A text file is a regular file*  
*A directory is not a regular file*

(b) Circle the names of directories.

(c) Circle the size of the smallest regular file.

(d) Underline the names of the executable files.

(e) Give the command to remove read permission for others (not in the group) from all the files (including the directories) without changing any other permissions.

Assignment Project Exam Help

*chmod o-r \**

*other* *↑* *wild card*

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*replace any files in the current working directory*

(f) Suppose you have a new file `new_file` and you don't know the permission. What is the command to set the file to be readable and writeable by the owner, readable by the group and not accessible at all to anyone else?

*chmod 640 new\_file*

*so rw- r-x*  
*110 = 6 101 = 5*

*Each group of permission settings is represented by 3 bits, or one octal digit*

*rw- r--*  
*111 = 7 100 = 4*

(g) Show the changes directly on the listing that would result from running the command `chmod 751 student_list.txt`

*7 → 111 → rwx*

*5 → 101 → r-x*

*1 → 001 → --x*

*The new permissions would be*

*-rwxr-x--x*