

# Lecture 7

Review For Midterm

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The Midterm will be 90 minutes long, and will cover anything in the summaries at the end of each lecture.

You should be comfortable with:

- Navigation commands, relative paths, relative-to-home paths, and absolute paths.
- Copying, moving, and deleting files and directories. When to use `-r`.
- Sending input into files, and reading files. The various redirects and what they do.
- File expansions.
- Using the `find` command to find files and directories.
- Converting from different number systems.
- Setting permissions using `chmod` with both octal and symbolic commands. Using `umask` to set defaults.
- Using filter commands such as `tr`, `cut`, `sort`, `head` and `tail`. Using pipes to 'chain' these commands together.
- Using `grep` to find a pattern in a file.
- Use SSH to log into a remote server, and SCP to transfer files.

Review questions can be found at the end of [Lecture 3B](#) and [Lecture 5B](#). The ULG also has a comprehensive midterm review that you might find useful.

Additionally, here are yet even more review questions that you might find useful:

1. Convert the decimal number **217** to octal.  
  
0331
2. What is **0xDEC** in binary?  
  
1101 1110 1100
3. How do you know if a file or directory is hidden? How would you list these files and directories?  
  
Hidden files and directories start with `.` and you can see them using `ls -a`.
4. What find command will match all files on the filesystem that are called report2018 or report2019?  
  
`find / -iname report201[89]`
5. How can you read from a file called `cars`, convert everything to upper-case, and redirect that into a file called CARS?

```
cat cars | tr 'a-z' 'A-Z' > CARS
```

6. Let's say that user `tstark13` has an account on the server `avengers` which is part of the `marvel.com` domain. They have a folder called `suitv4` in their home directory that they want to save locally. What command will do this?

```
scp -r tstark13@avengers.marvel.com:~/suitv4 ~
```

7. What will this command do? `find ~ -iname file?? > list-of-files 2>&1`

list all files that start with 'file' and end with 2 characters, and save that list to a file called `list-of-files`. All errors will also be saved to `list-of-files`.

Have a look at the contents of the file `SSDexample` :

```
Samsung 860 250 79.99
Samsung 860 500 119.99
Kingston A400 240 52.99
WD Blue 250 74.99
Crucial MX500 500 115.99
Kingston UV500 240 72.99
WD Green 240 59.90
Crucial MX600 1000 194.99
Kingston UV500 120 44.99
Samsung 860Pro 2000 1099.99
Sandisk PLUS 480 144.99
Samsung 850 500 348.12
Crucial M500 480 733.74
```

Now have a look at the desired output:

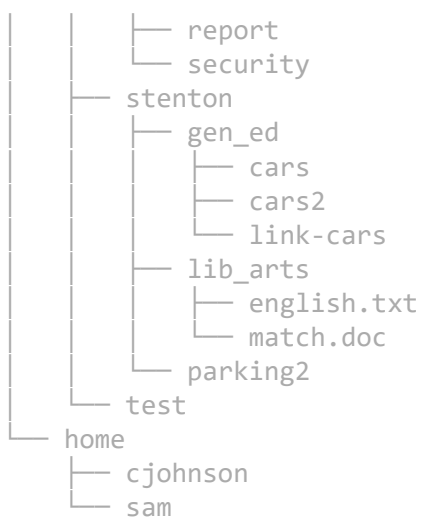
```
WD Green 240 59.90
```

What command will accomplish this?

```
sort SSDexample | tail -1
```

Have a look at this file structure:

```
/
├── sample_dir
│   ├── admin
│   ├── cambridge
│   │   ├── cafeteria
│   │   └── library
│   │       └── dir_practice
│   ├── faculty
│   ├── markham
│   │   ├── annex
│   │   ├── annex2
│   │   ├── building1
│   │   └── parking
│   ├── outline.doc
│   ├── oxford
│   │   ├── outline.doc
│   │   ├── programming
│   │   │   ├── report.docx
│   │   │   ├── report-final.pdf
│   │   └── report.pdf
```



1. What command will put you into `gen_ed` no matter where you are?  
`cd /sample_dir/stenton/gen_ed`
2. User `sam`'s current location is in `programming`. What command will they use to move `report.pdf` into their home directory?  
`mv report.pdf ~`
3. Your current location is in `cambridge`. What command will remove `stenton`?  
`rm -r ../stenton`