

CSCI 274 - Intro to Linux OS

Week 3 - Aliasing, Interrogating Files, and File Sharing

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COVID mask requirements

Mask Use: A reminder from the administration and department that masks are required in classrooms and when passing between classes. Mask use in classrooms seems to be followed well. Mask use between classes (though perhaps not necessarily for those in this class) has not been followed as well. Please remember to continue wearing masks when passing between classes. Even if not for yourself, to help keep safe those in our community who are vulnerable.

Overview

1. Aliases
2. Interrogating Files
3. File Sharing

Aliases

This command instructs the shell to **replace one command with another** while executing the command. It is also like a shortcut command which will have the same functionality as if we are writing the whole command.

Syntax: `$ alias name="value"`

Tip: to print all of the defined aliases in a reusable format

```
$ alias -p
```

Aliases ...

To remove an existing alias is known as unaliasing

Syntax: `$ unalias [COMMAND NAME]`

Tip: To permanently store aliases across sessions, you can store aliases in shell configuration files (ex. `~/.bashrc`)

Tip: Alias might not have a manual entry (“man alias” may not work) on your Linux distribution. Use “help alias” instead.

Tip

Tip: Besides from `.bashrc`, there are other rc files

rc means “**r**un **c**ommands”. It is used for any file that contains startup information for a command. Recently, it has been expanded to mean “**r**un **c**ontrol”. An **rc** file controls how a program runs.

Example:

Add ‘**set number**’ to your **.vimrc** file in your home directory. This will set line numbers in the text editor everytime you use the command.

Interrogating Files

touch - used to create, change, and modify timestamps of a file; used to create a file without any content

```
$ touch [OPTIONS] [FILE(s)]
```

rm - (stands for **remove**) used to remove objects such as files, directories, symbolic links and so on.

```
$ rm [ -i | -r | -f ] [FILE]
```

Interrogating Files ...

find - used to find files or directories and perform subsequent operations on them. You can search by file, folder, name, creation date, modification date, owner, and permissions.

```
$ find [where to start searching from] [EXPRESSION to find] [OPTIONS] [what to find]
```

Expression examples: -name, -empty, -type, -size, -perm, -user

file - used to determine the type of file based 3 sets of test: filesystem, magic, and language test.

```
$ file [ -b ] [FILENAME]
```


Interrogating Files ...

stat - provides information about a file such as size, inode number, access permissions, time of last access or modification, and more.

```
$ stat [OPTIONS] [FILE]
```

df - displays the amount of disk space available on the file system. Without an argument, shows the space available on all currently mounted file systems.

```
$ df [OPTIONS] [FILENAME]
```

wc - (aka **word count**) used for counting purpose; used to find out the number of lines, word count, bytes and character count in files specified

```
$ wc [-l | -w | -c | -m ] FILENAME
```

File Sharing

wget is a non-interactive network downloader.

- Can be used as a background process as to not hinder running processes or when the user is not logged on.
- Supports HTTP, HTTPS, and FTP
- Can follow links in HTML and XHTML pages and create local versions of remote websites
- Can be instructed to convert links in downloaded HTML files to local files for offline viewing

```
$ wget [ -o | -a ] [FILE TO SAVE TO] [URL]
```

File Sharing ...

An archived file is a file that is composed of one or more files along with metadata. Archive files are used to collect multiple data files together into a single file for easier portability and storage, or simply to compress files to use less storage

tar stands for **t**ape **a**rchive, is used to create Archive and extract that Archive file.

Syntax: `$ tar [-xvf | -cvf | -xvzf | -cvzf] [archive-FILE] [file are directory to be archived]`

Create compressed file: `$ tar cvf [list of FILES]`

Uncompress file: `$ tar xvf FILE.tar`

Due Dates

- Week 3 Quiz