

STUDY GUIDE

ACCESSING AND NAVIGATING THE COMMAND LINE INTERFACE

Command Line

- A text-based interface.
- *Synonyms:* command line interface (CLI) console

Terminal

- An OS X application that provides text-based access to a computer's operating system.
- Any device or application used for data entry and display in a computer system.
- *Synonyms:* client, computer terminal, terminal emulator

File System

- A file system is a systematic way to control how information is stored and retrieved on a computer. It describes where one piece of information stops and the next one begins. Each filesystem has its own structure and logic.
- *Synonyms:* NTFS (Windows' File System), HFS+ (Apple's File System), file allocation table, GFS(Global File System)

Directory

- A unit, or container, used to organize computer files into a hierarchical structure.
- *Synonyms:* folder, catalog, drawer

Path

- A sequence of symbols and names that identifies a file or directory. The path always starts from your working directory or from the root directory, and each sub-directory is followed by a forward slash.
- An *absolute*, or full, path begins with the root directory and specifies every directory above the terminating file or directory name.
- A *relative* path is a way to specify the location of a directory or file relative to another directory. It does not include the root or parent directory names.
- *Synonyms:* path name

Command

- The action we want the computer to take; always a single word.
- *Synonyms:* utility

Option

- Follows the "command" in a command line; used to modify the behavior of the command in some way.
- *Synonyms:* flag

Argument

- Follows the "command" and "options" (if any) in a command line and is used to explain what we want the command to act upon.
- The number of arguments used generally depends on the command; some don't need arguments, some require exactly one argument, some require many arguments, and some are flexible in the number they can take.

Command

Description

Command	Description
<code>pwd -options</code>	Prints the working directory; returns the absolute path name of the current directory
<code>ls [-options][path/to/directory]</code>	Lists files in current directory
<code>ls -a</code>	Lists hidden files in the current directory
<code>cd [-options][path/to/directory]</code>	Changes the current working directory to the specified directory
<code>cd ..</code>	Changes to parent directory
<code>mkdir [-options][path/to/directory]</code>	Makes a new directory
<code>rm -r [path/to/file][path/to/file] ...</code>	Removes directories or files permanently (use with caution)
<code>rm myfile</code>	removes myfile permanently (use with caution)
<code>mv [-options][path/to/file][path/to/directory]</code>	Moves directories or files to a new locale
<code>mv [-options][path/to/file][NEW_FILE_NAME]</code>	Renames a file or directory

TERMS

On Mac, your terminal comes with a manual. To access more (*a lot more*) information about any command, `typeman`, followed by the command name, and press Enter:

You can scroll through a manual entry using the arrow keys or space bar. To quit this view and return to your prompt, type `q`.

Guiding Questions

1. What are the benefits of using the CLI instead of a GUI?
2. Why do you need to be careful when using the CLI?
3. How is a shell different than the CLI?

Additional Resources

- [General Assembly's Original Command Line Review](#)
 - A walkthrough created for web development students that provides additional high-level practice.