title: Programming Fundamentals
subtitle: Reference

Files and Directories (1-1_filedir.md)

- The file system is responsible for managing information on the disk.
- Information is stored in files, which are stored in directories (folders).
- Directories can also store other directories, which forms a directory tree.
- `man command` or `command --help` returns information about the command.
- `cd path` changes the current working directory.
- `ls path` prints a listing of a specific file or directory;
  `ls` on its own lists the current working directory.
- `pwd` prints the user's current working directory.
- `whoami` shows the user's current identity.
- `/` on its own is the root directory of the whole filesystem.
- A relative path specifies a location starting from the current location.
- An absolute path specifies a location from the root of the filesystem.
- Directory names in a path are separated with '/' on Unix, but '\' on Windows.
- '..' means "the directory above the current one";
  '.' on its own means "the current directory".
- Most files' names are `something.extension`.
- Most commands take options (flags) which begin with a '-'.
- ~ stands for the user's home directory. Use it at the beginning of a path, like `~/path/to/file`
- If you type enough letters of your command or argument, then you can press tab to have it automatically completed.
  Double tab displays all the available options.
- Up Arrow displays last command in the command line.

Creating Things (1-2-create.md)

- `cp old new` copies a file.
- `mkdir path` creates a new directory.
- `mv old new` moves (renames) a file or directory.
- `rm path` removes (deletes) a file.
- `rmdir path` removes (deletes) an empty directory.
- `echo "hello!"` prints the text between quotes to the shell.
- > redirects the output of a command to a file.
- `touch path` creates an empty file if it doesn't already exist.