

# Navigating the File System

## ls List

The shell command `ls` is used to list the contents of a directory. If no arguments are given, it will list the contents of the current working directory.

```
$ ls Desktop  
resume.pdf  
photo.png
```

## pwd Print Working Directory

The shell command `pwd` displays the file path from the root directory to the current working directory.

```
$ pwd  
/Users/sonny/Downloads
```

## mkdir Make Directory

The shell command `mkdir` is used to make a new directory in the filesystem according to its argument. If a file path is given, the new directory will be placed at the end. Otherwise, it will create a new directory in the current working directory.

```
$ mkdir new-directory  
$ ls  
old-directory    new-directory
```

## cd Change Directory

The shell command `cd` is used to move throughout the filesystem of a computer. It accepts a variety of arguments:

- Full file paths.

- Names of children of the current directory.

- `..` the parent of the current directory.

```
$ cd some-directory  
$ cd ..
```

## Filesystem Structure

A computer's filesystem organizes the data stored by a computer, so that it can be easily retrieved by the user. Files are generally represented in a tree-like structure, in which any parent directory can have any number of children. The root directory is then found at the base of the tree.

## touch Create New File

The shell command `touch` creates a new file in the current working directory with the name provided.

```
$ touch grocery-list.txt
```

## The Command Line

The command line allows a user to navigate the filesystem and run built-in programs or custom scripts. In Unix, the command line interface is called Bash, and the shell prompt is the `$`.

```
$
```

## Helper Commands

Helper commands for the command line include:

`clear` to clear the terminal

`tab` to autocomplete the line

`↑` and `↓` to cycle through previous commands