

Navigating the File System

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 `$`.

```
$
```

List ls

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

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

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 typically represented by 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.

Print Working Directory pwd

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

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

cd Change Directory

The shell command `cd` can be 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 ..
```

Make Directory mkdir

The shell command `mkdir` can be 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 with the name given.

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

touch Create New File

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

```
$ touch secret-file.txt
```