

Introduction to the Command Line

Objectives

- Know why the command line is a useful tool
- Understand how to read a man page
- Navigate the files system using cd, ls and pwd
- Create, move and remove files directores using touch, mv and rm, mkdir, rmdir
- Copy files from one directory to another using cp
- Pipe commands together
- Search files using grep

**"Mastery of the command line
will make you a faster and
more powerful developer"**

Unix Philosophy

“Do one thing and do it well.”
Each command does one thing

Chaining Commands

Commands can be put together to perform powerful sequences of commands



Scripting

Commands can be saved in a file and executed later

Let's dig in...

Finding Help

man man

man ls

File System Commands

cd ~

ls

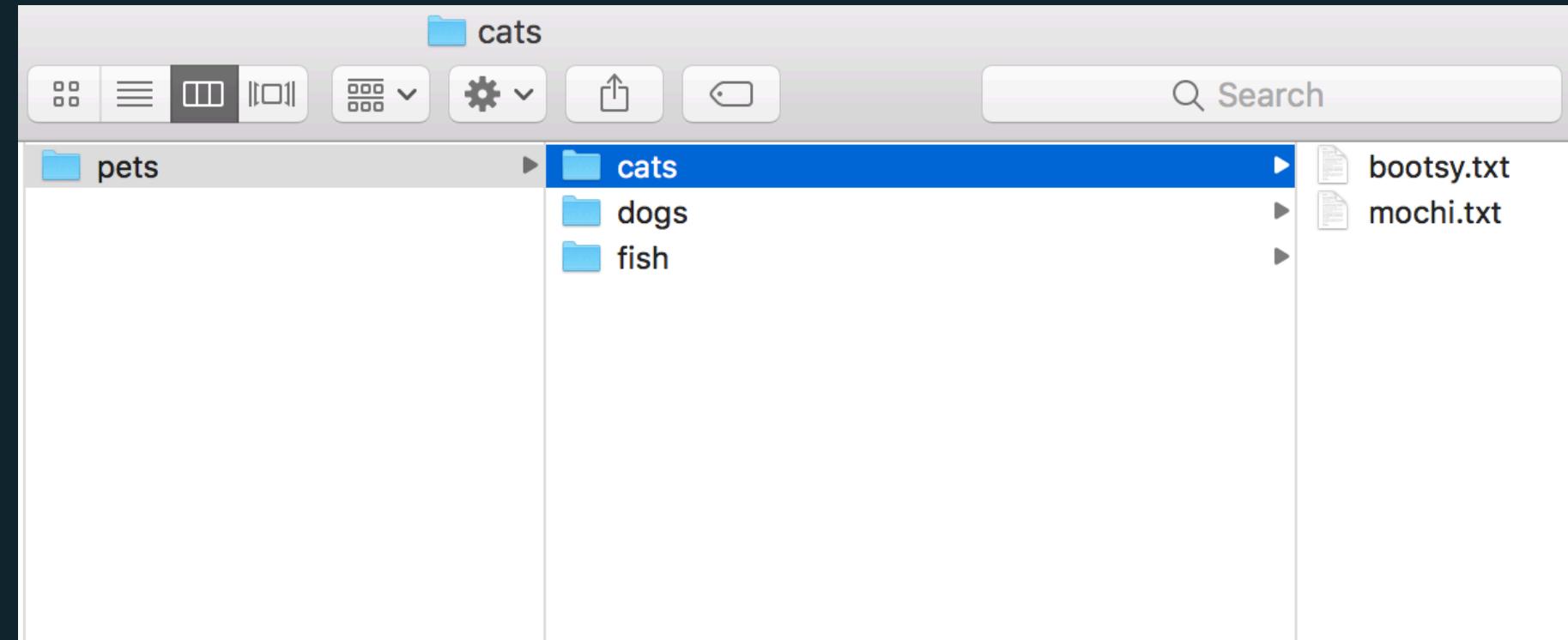
ls -a

ls -l

ls -R

Note: there are often more flags than you will have use for

Your File System can be thought of as tree



```
.  
├── cats  
│   ├── bootsy.txt  
│   └── mochi.txt  
├── dogs  
│   └── cassie.txt  
└── fish  
    ├── neptune.txt  
    └── poissidon.txt
```

3 directories, 5 files

File System Commands to traverse the tree

pwd

cd /

cd ~

cd ..

pwd

cd ~

cd ../../..

pwd

File Manipulation

create and view a file

```
touch notes.txt  
echo "Mochi" >> notes.txt  
echo "Bootsy" >> notes.txt  
ls -l notes.txt  
cat notes.txt
```

rename a file

```
mv notes.txt cats.txt  
cat cats.txt
```

delete a file

```
rm cats.txt
```

Directory manipulation

create and remove a directory

```
cd ~  
mkdir test  
ls -l ~  
rmdir test
```

get organized!

```
mkdir -p ~/workspace/q1
```

Copying files

```
mkdir cats  
mkdir pets  
touch cats/meow.txt  
cp -R cats/* pets/.  
ls -laR pets
```

Piping Commands

history

history | tail

history > history.txt

Search

```
grep ls history.txt  
grep -A1 ls history.txt  
grep -B1 ls history.txt  
grep -C1 ls history.txt
```

Word of caution

The command line is extremely powerful. There are some command that can ruin your computer or your day. Example (Do not run these commands)...

`rm -rf /` <- This will ruin your day

Which includes making a typo!

`rm -rf / Users/Craig/test` <- note space after / DOH!

Other favorite commands

more

tail

ln

alias

clear

cal

ssh

find

chmod

whoami

groups

sudo

vim

open

top

ps

Resources

- Unix Man Pages
- explainshell.com
- Learn the command line the hard way.
- OS X Terminal Cheatsheets

CFU

Put answers on slates (or in Slack)

Assessment Slides