

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.”



Chaining Commands



Scripting

```
bin  -> usr/bin
boot
dev
etc
home
lib  -> usr/lib
lib64 -> usr/lib
lost+found
mnt
opt
private -> /home/encrypted
proc
root
run
sbin  -> usr/bin
srv
sys
tmp
```

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

```
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

have students put answers on slates or in Slack

Assessment Slides