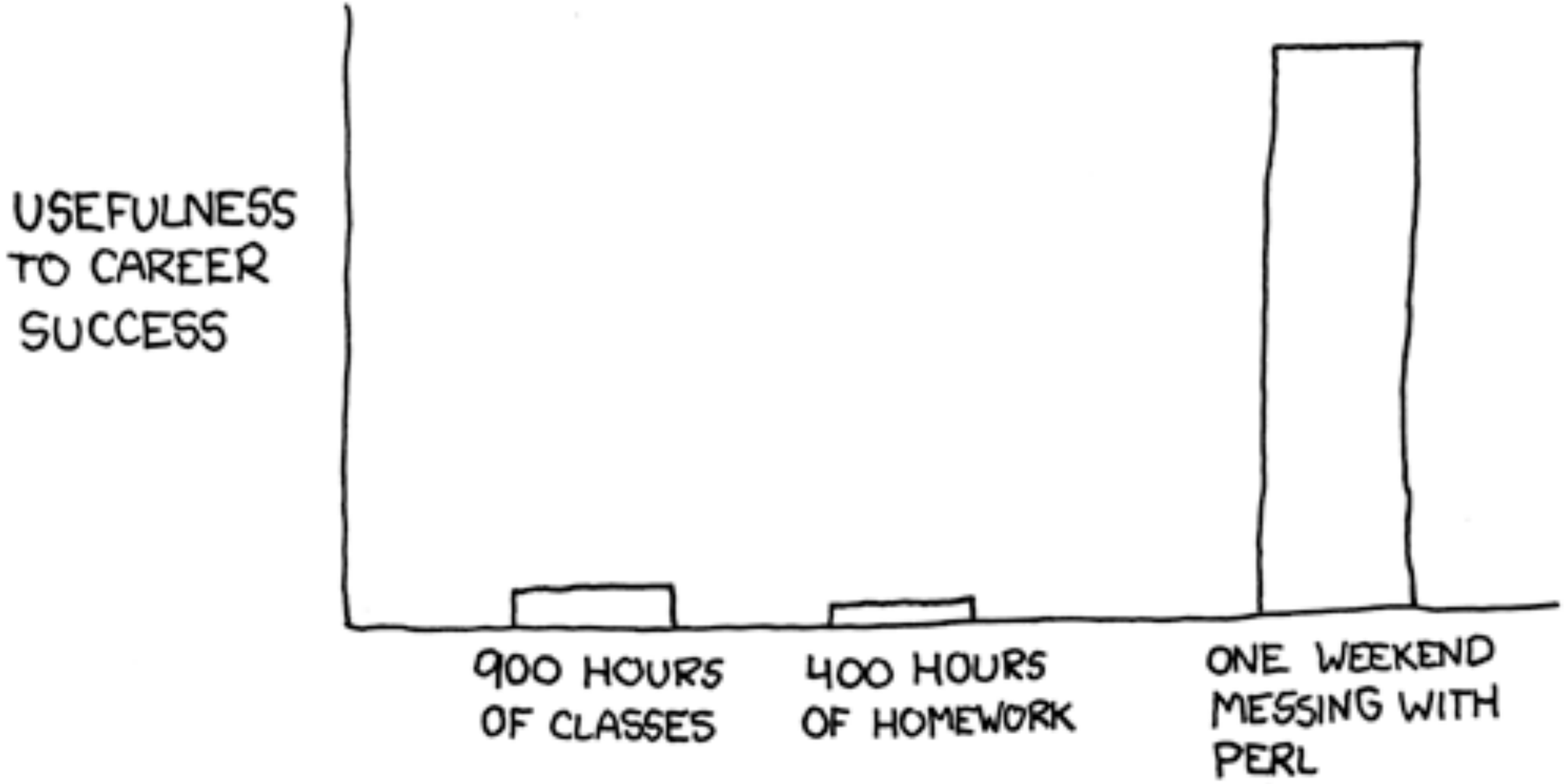
10x Command Line-Fu

How to look cooler at Starbucks

How to understand more XKCD comics

https://github.com/epylinkn/itp-command-fu

11TH-GRADE ACTIVITIES:



Why am I here? Why practice command-fu?

- You use the command line at work
- You use it to bootstrap your code projects
- Automating tasks you do frequently
- Anthony seems like a cool guy I wonder what he has to say

The command line is incredibly expressive and powerful. It can help you be more productive and automate mundane tasks.

Our Roadmap

- standard unix bash commands
- chaining, pipes and output redirection
- alias, shell functions, and your first shell script
- scripting with javascript
- cron, `.bashrc`, and `.bash_profile`
- homebrew - the package manager for OSX

/bin/bash

Mac's run Unix.

Developers love Unix.

Unix is awesome.

You can be awesome.

Standard unix bash commands

The basics

cd - change directory
ls - list files
pwd - current working directory
cp - copy
mv - move
mkdir - make directory
rm - remove
cat - concatenate

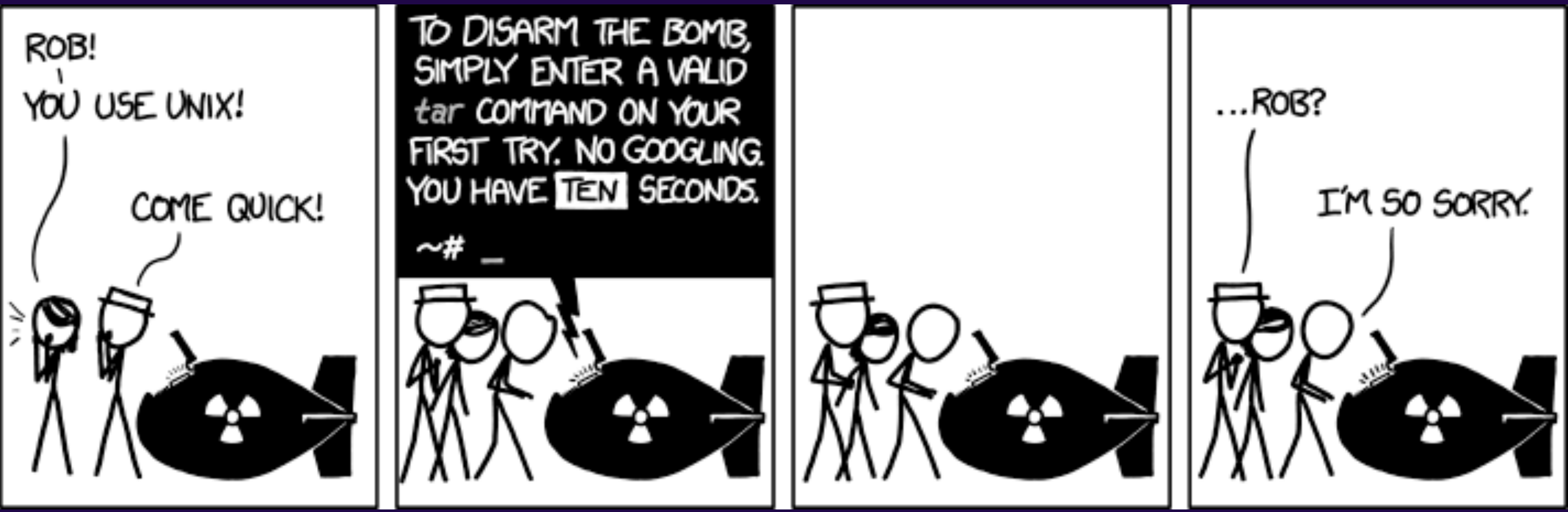
Standard unix bash commands

More advanced commands

```
say
history
head / tail
curl
time
watch
grep
find
xargs
ssh
```

Structure of a command

```
$ command --option option_argument x (y z ...)
```


ROB!
YOU USE UNIX!
COME QUICK!
TO DISARM THE BOMB, SIMPLY ENTER A VALID tar COMMAND ON YOUR FIRST TRY. NO GOOGLING. YOU HAVE TEN SECONDS.
~# _
...ROB?
I'M SO SORRY.

```
tar czvf myTarball.tar.gz .
```

say cheese

Simple command to make terminal say something.

```
say why cant we be friends
```

Extra credit:

```
say --voice ?
say --voice "Bad News" The light you see at the end of the tunnel is the headlamp of a fast approaching train.
```

history repeats itself

```
history
echo goodbye world
history
!-2
history
```

heads or tails

```
head camp.txt
head -n50 camp.txt
tail camp.txt
```

Extra Credit:

```
tail -f camp.txt
echo foo >> camp.txt
```

alias and your first shell script!

curly fries

```
curl itpcalendar.herokuapp.com/calendar
curl wttr.in
open -a "Google Chrome" http://wttr.in
curl -I ideas.ted.com
```

Extra Credit

```
curl -XPOST slack webhook
curl -o itp-calendar.html http://itp.nyu.edu/camp2016/session/238
# copy a cURL command from chrome inspector
```

Steal an entire site with wget

http://www.linuxjournal.com/content/downloading-entire-web-site-wget

```
$ wget \
     --recursive \
     --no-clobber \
     --page-requisites \
     --html-extension \
     --convert-links \
     --restrict-file-names=windows \
     --domains blankslate.io \
     --no-parent \
         blankslate.io
```

Chaining commands

```
false || echo "Oops, fail"
# => Oops fail

true || echo "Will not be printed"
# =>

true && echo "Things went well"
# => Things went well

false ; echo "This will always run"
# => This will always run
```

Output redirection

```
<
# The < will take and send the input from the file on the right to the
program on the left.

>
# The > takes the output of the command on the left, then writes it
to the file on the right.

>>
# The >> takes the output of the command on the left, then appends it
to the file on the right.

|
# The | takes the output from the command on the left, and "pipes" it to
the command on the right.
```

pipe

"pipe" the output of one command into the input of a second command

```
cat ~/.bash_history | grep say | tail -n20
```

crontab -e

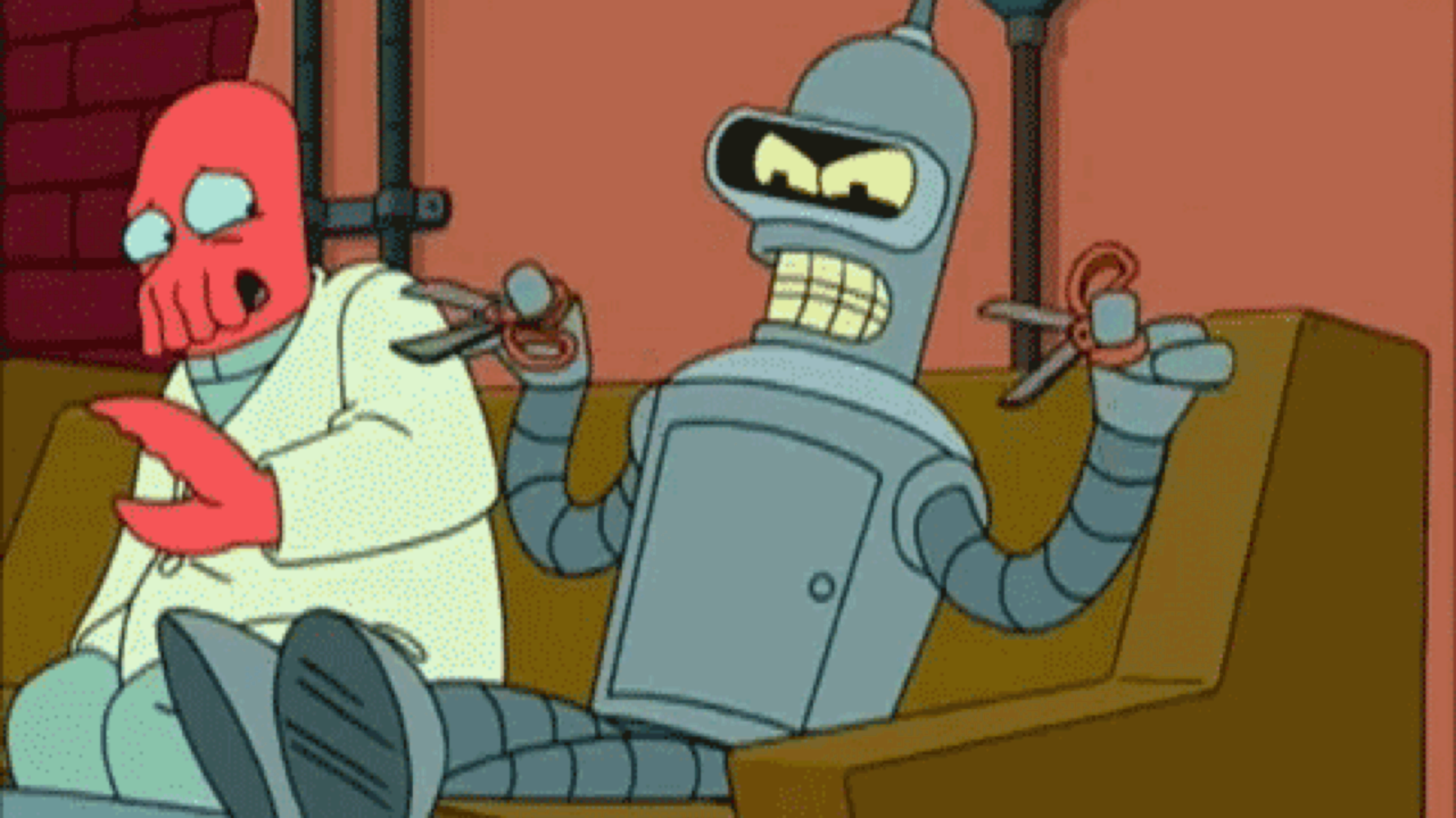
```
# Examples
*/1 * * * * say 'super duper'

# Use a login shell so that our ~/.bash_profile gets loaded
*/1 * * * * /bin/bash -lc "/Users/anthony/me/itp/command-fu/03-superbole.js"
```

* * * * *
Commands to be executed
Day of week (0-6) (Sunday = 0)
Month (1-12)
Day of Month (1-31)
Hour (0-24)
Minute (0-59)

Homebrew

The missing package manager for OS X



Some homebrew recommendations

Some homebrew recommendations:

```
brew update
brew install wget
wget https://cdn.rawgit.com/epylinkn/itp-command-fu/master/commandfu.pdf
brew install tree
tree .
brew install jq
curl itpcalendar.herokuapp.com/calendar | jq '.[].title'

# faster and more configurable command-line search
brew install the_silver_searcher
```

Brew Cask

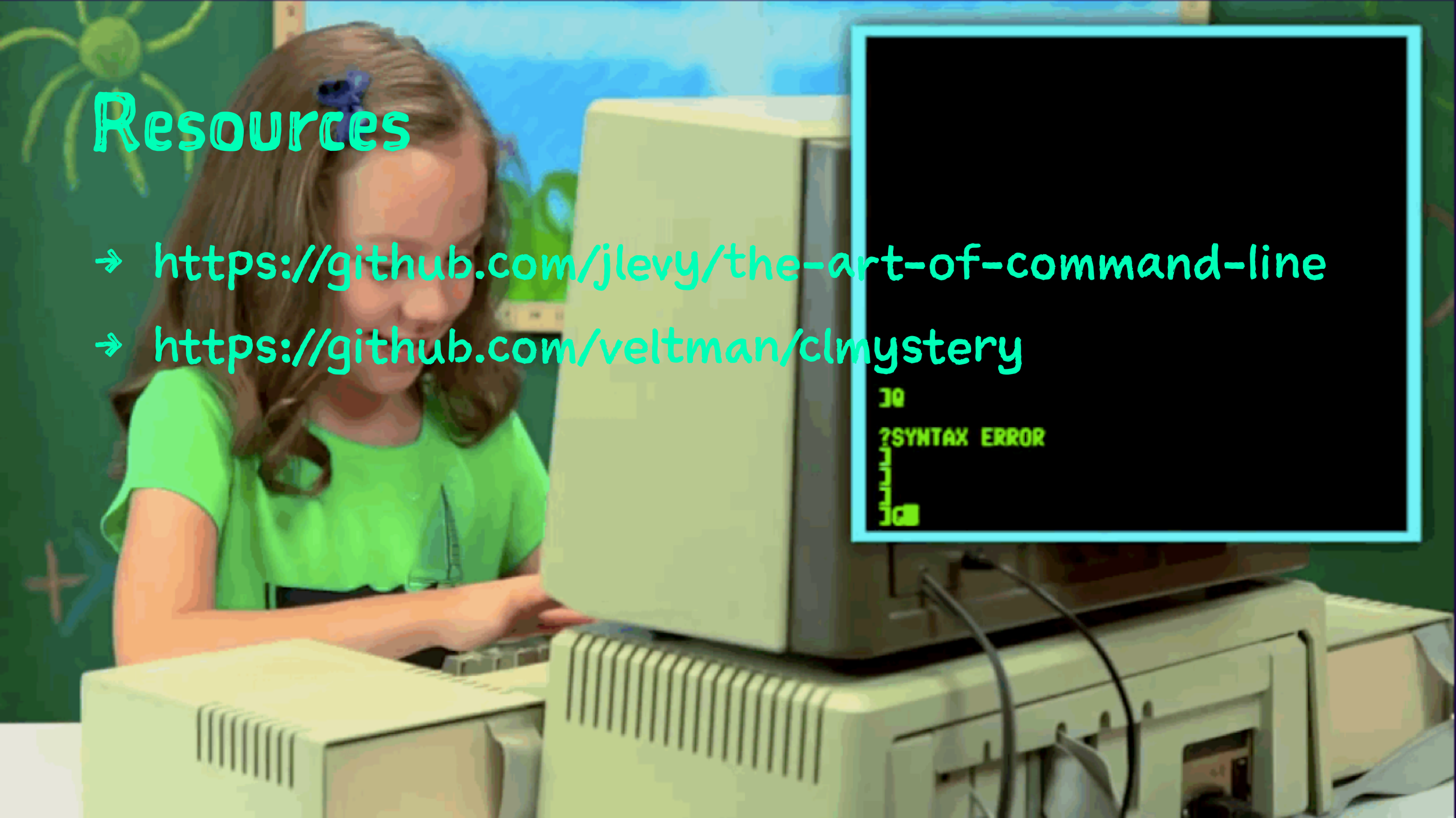
```
brew install cask
brew cask info p5
brew cask install p5
open -a 'p5'
brew cask uninstall p5

brew cask search unity
brew cask install unity
```

INSTALL.SH

```
#!/bin/bash

pip install "$1" &
easy_install "$1" &
brew install "$1" &
npm install "$1" &
yum install "$1" & dnf install "$1" &
docker run "$1" &
pkg install "$1" &
apt-get install "$1" &
sudo apt-get install "$1" &
steamcmd +app_update "$1" validate &
git clone https://github.com/"$1"/"$1" &
cd "$1";./configure;make;make install &
curl "$1" | bash &
```


Resources
https://github.com/jlevy/the-art-of-command-line
https://github.com/veltman/clmystery
]0
?SYNTAX ERROR
]0