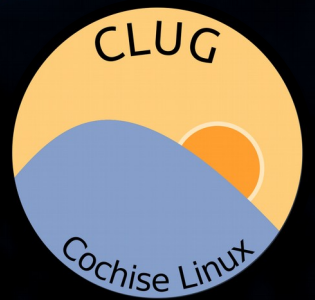


CLUG

Cochise Linux User Group

Get to know your command line!
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CochiseLinuxUsersGroup.github.io



What is the Command Line?

- Simply put, a text-based way to interact with your operating system.
- The terms CLI (Command Line Interface) and Shell are often used to describe the command line.
- You can have a true text-based command line interface or one that is run through the GUI.

Text Based CLI

- More common in server based distributions.
- Can be accessed by ctrl + alt + f2 through ctrl + alt + f6.
- Each function key gives you a different workspace.
- Ctrl + alt + f1 will bring you back to the GUI (if you had one running)

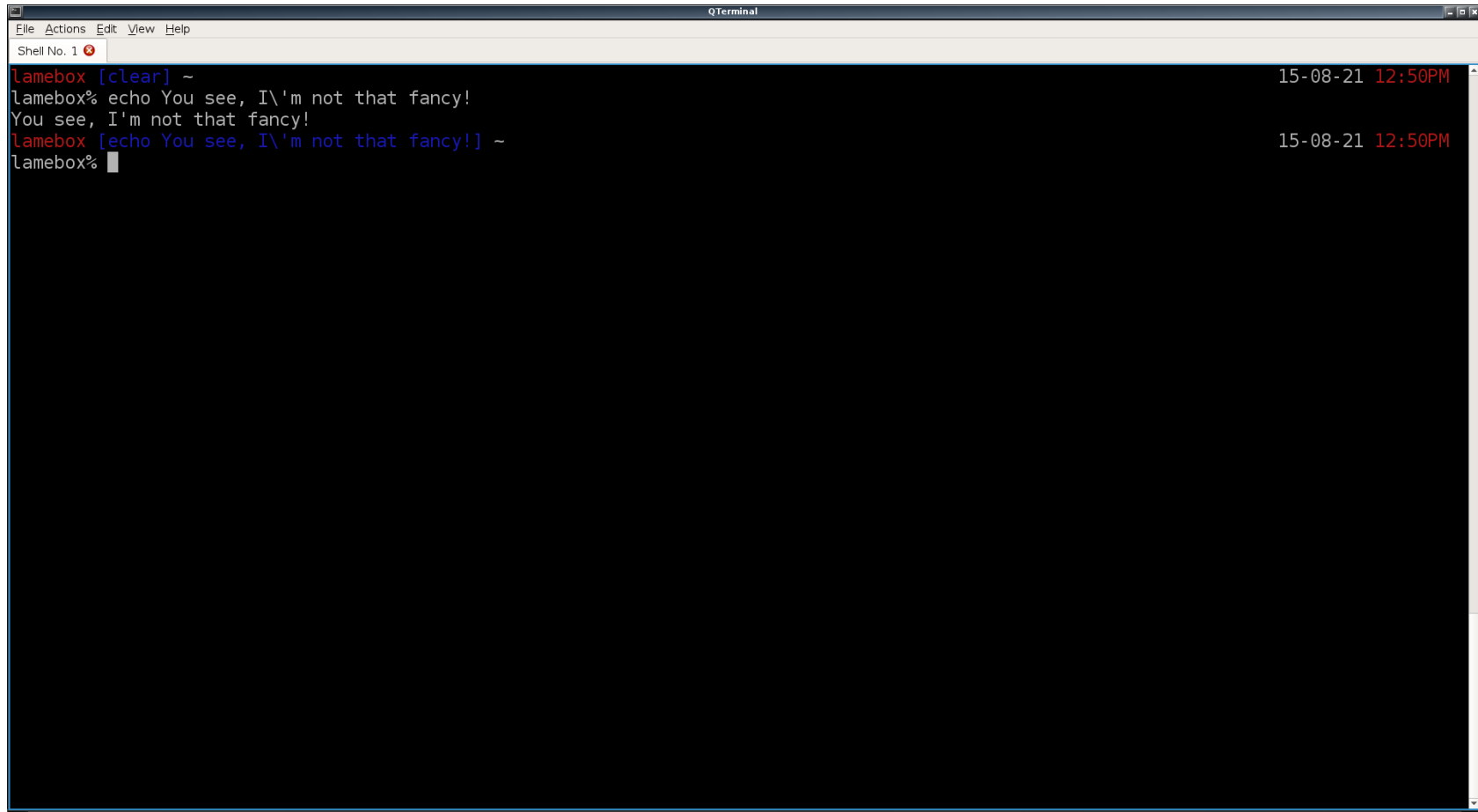
GUI Based Terminals

- This will be the most common way to use the command line.
- Linux distributions have a graphical based terminal installed by default.
- It is generally bundled in the desktop environment and can be accessed through the menu system.

Common GUI Terminals

- Konsole – KDE
- Gnome-Terminal – Gnome
- XFCE terminal – XFCE
- Terminology – Enlightenment
- Xterm – Xorg
- LXTerminal – LXDE
- There are many many more to choose from.

What does this 'Terminal' thing look like?



A screenshot of a QTerminal window. The title bar reads "QTerminal". Below the title bar is a menu bar with "File", "Actions", "Edit", "View", and "Help". A tab labeled "Shell No. 1" is visible. The terminal content shows a shell session with the following text:
lamebox [clear] ~ 15-08-21 12:50PM
lamebox% echo You see, I\'m not that fancy!
You see, I\'m not that fancy!
lamebox [echo You see, I\'m not that fancy!] ~ 15-08-21 12:50PM
lamebox% █

Basic Commands

- ls – list files in a directory
- cd – change a directory
- cp – copy a file or directory
- mv – move a file or directory
- rm – remove a file or directory
- kill/killall – killing tasks
- sudo – run a command with root privileges.

Why Use the Command Line?

- Can often be a quicker way to complete a task.
- Sometimes you may encounter issues with the GUI that can easily be resolved with the command line.
- Scripting and automation. (Makes life easier)

Some Notable Command Line Programs.

- Irssi – text based irc client (The client of the future).
- vi or vim – text based text editor.
- Elinks – text based web browser.
- Moc – music over console – a text based music player.
- Mutt – text based email client.
- Glances – System monitor
- There are many, many more...

Screenshots

Irssi

```
Cochise Linux Users Group
09:07 -!- paul_be [-lame@67-1-182-192.tcso.qwest.net] has joined #Cochiselinux
09:07 -!- Topic for #Cochiselinux: Cochise Linux Users Group
09:07 -!- Topic set by hippyjake [-hippyjake@wsip-98-172-80-82.ph.ph.cox.net] [Tue Jul 28 20:44:12 2015]
09:07 [Users #cochiselinux]
09:07 [@ChanServ] [ clugbot] [ MajB] [ newascii_bot] [ paul_be]
09:07 -!- Irssi: #cochiselinux: Total of 5 nicks [1 ops, 0 halfops, 0 voices, 4 normal]
09:07 -NickServ(NickServ@services.)- You are now identified for paul_be.
09:07 -!- unaffiliated/paul-be/x-4231257 is now your hidden host (set by services.)
09:07 -ChanServ(ChanServ@services.)- [#Cochiselinux] Welcome to #Cochiselinux, A place for Cochise County Arizona Linux Users
09:07 -!- Home page for #Cochiselinux: https://cochiselinuxusersgroup.github.io/ https://github.com/CochiseLinuxUsersGroup
09:07 -!- Channel #Cochiselinux created Tue Jul 28 20:39:02 2015
09:07 -!- Irssi: Join to #cochiselinux was synced in 5 secs
```

```
[09:08] [paul_be(+i)] [2:Freenode/#cochiselinux(+cnt)]
```

```
[#cochiselinux] █
```

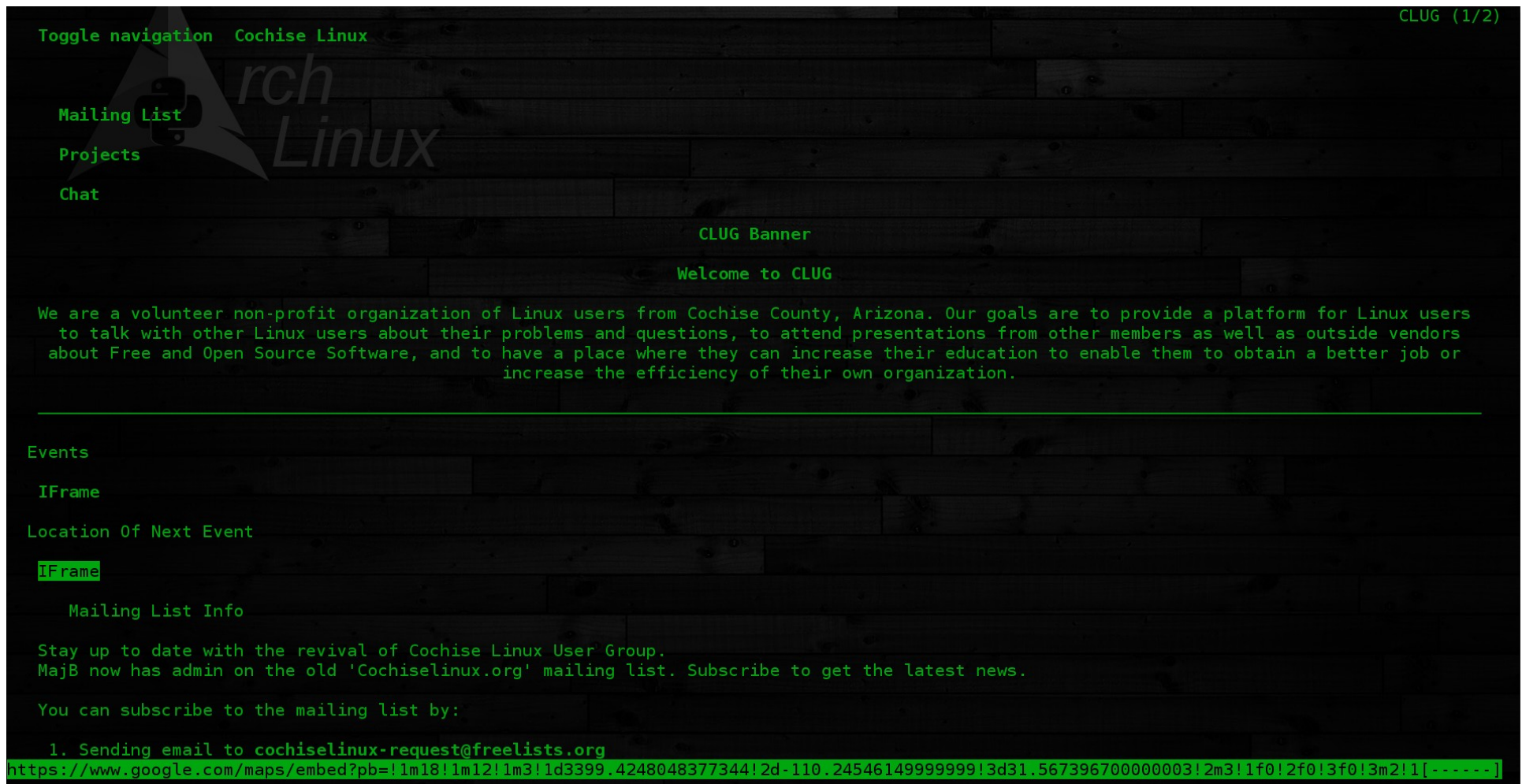
Screenshots

Vim showing a simple bash script.

```
1 #!/bin/bash
2
3 export PATH=~/.gem/ruby/2.2.0/bin:$PATH
4 echo 'exporting path...'
5
6 gem install bundler
7 bundle install --path vendor/bundle
8 bundle exec jekyll serve
```

More Screenshots

Elinks @ cochiselinux



Toggle navigation Cochise Linux CLUG (1/2)

Mailing List

Projects

Chat

CLUG Banner

Welcome to CLUG

We are a volunteer non-profit organization of Linux users from Cochise County, Arizona. Our goals are to provide a platform for Linux users to talk with other Linux users about their problems and questions, to attend presentations from other members as well as outside vendors about Free and Open Source Software, and to have a place where they can increase their education to enable them to obtain a better job or increase the efficiency of their own organization.

Events

IFrame

Location Of Next Event

IFrame

Mailing List Info

Stay up to date with the revival of Cochise Linux User Group.
MajB now has admin on the old 'Cochiselinux.org' mailing list. Subscribe to get the latest news.

You can subscribe to the mailing list by:

1. Sending email to cochiselinux-request@freelists.org

[https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3399.4248048377344!2d-110.24546149999999!3d31.567396700000003!2m3!1f0!2f0!3f0!3m2!1\[-----\]](https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3399.4248048377344!2d-110.24546149999999!3d31.567396700000003!2m3!1f0!2f0!3f0!3m2!1[-----])

More Screenshots

Moc – Music on Console

```
...loads/VA-The_Greatest_Singer-Songwriter_Classics-3CD-FLAC-2015-JLM|
../
000-va-the_greatest_singer-songwriter_classics-3cd-flac-2015
100-va-the_greatest_singer-songwriter_classics-3cd-flac-2015
200-va-the_greatest_singer-songwriter_classics-3cd-flac-2015
300-va-the_greatest_singer-songwriter_classics-3cd-flac-2015
1 Billy Joel - Piano Man (The Greatest Singer-Songwriter Cla[05:38|FLC]
2 JJ Cale - After Midnight (The Greatest Singer-Songwriter C[FLC]
3 Carly Simon - Coming Around Again (The Greatest Singer-Son[FLC]
4 Paul Simon - 50 Ways To Leave Your Lover (The Greatest Sin[FLC]
5 Bob Dylan - I Want You (The Greatest Singer-Songwriter Cla[FLC]
6 Carole King - It's Too Late (The Greatest Singer-Songwrite[FLC]
7 John Hiatt - Have A Little Faith In Me (The Greatest Singe[FLC]
8 Tanita Tikaram - Twist In My Sobriety (The Greatest Singer[FLC]
9 Chris Rea - Josephine (The Greatest Singer-Songwriter Clas[FLC]
10 Elton John - Your Song (The Greatest Singer-Songwriter Cl[FLC]
11 Karla Bonoff - Someone To Lay Down Beside Me (The Greates[FLC]
12 Van Morrison - Spanish Rose (The Greatest Singer-Songwri[FLC]
13 Lou Reed - Perfect Day (The Greatest Singer-Songwriter Cl[FLC]
14 Melanie - Beautiful People (The Greatest Singer-Songwrite[FLC]
15 Harry Nilsson - Everybody's Talkin' (The Greatest Singer-[FLC]
16 Paul Carrack - Groovin' (The Greatest Singer-Songwriter C[FLC]
17 Elkie Brooks - Pearl's A Singer (The Greatest Singer-Song[FLC]
18 Colin Blunstone - I Don't Believe In Miracles (The Greate[FLC]
19 Norah Jones - Don't Know Why (The Greatest Singer-Songwri[FLC]
20 John Mayer - Daughters (The Greatest Singer-Songwriter Cl[FLC]
1 Leonard Cohen - Take This Waltz (The Greatest Singer-Songw[FLC]
2 Rickie Lee Jones - Chuck E's In Love (The Greatest Singer-[FLC]
3 Paul Weller - You Do Something To Me (The Greatest Singer-[FLC]
4 Sheryl Crow - All I Wanna Do (The Greatest Singer-Songwri[FLC]
5 Tom Waits - Tom Traubert's Blues (The Greatest Singer-Song[FLC]
6 Andrew Gold - Never Slip Away (The Greatest Singer-Songwri[FLC]
7 Suzanne Vega - Luka (The Greatest Singer-Songwriter Classi[FLC]
8 Bill Withers - Ain't No Sunshine (The Greatest Singer-Song[FLC]
9 Christopher Cross - Sailing (The Greatest Singer-Songwrite[FLC]
|Playing...|Master 33%|>000:05:38|
> 1 Billy Joel - Piano Man (The Greatest Singer-Songwriter Classics)
00:18 05:20 [05:38] 44kHz 856kbps [STEREO] [NET] [SHUFFLE] [REPEAT] [NEXT]
```


More Screenshots

Glances – System Monitor

```
lamebox (arch 64bit / Linux 4.2.5-1-ARCH) Uptime: 4:30:52

CPU [||| 6.5%] CPU 6.5% nice: 0.0% MEM 39.3% active: 1.98G SWAP 0.0% LOAD 4-core
MEM [||||| 39.3%] user: 4.8% irq: 0.0% total: 3.86G inactive: 1.13G total: 2.00G 1 min: 0.25
SWAP [ 0.0%] system: 1.4% iowait: 0.2% used: 1.52G buffers: 109M used: 0 5 min: 0.31
idle: 93.5% steal: 0.0% free: 2.35G cached: 1.72G free: 2.00G 15 min: 0.25

NETWORK Rx/s Tx/s TASKS 145 (373 thr), 2 run, 143 slp, 0 oth sorted automatically by cpu_percent, flat view
enp2s0 0b 0b
lo 512b 512b
wlp4s0 105Kb 7Kb

DISK I/O R/s W/s CPU% MEM% VIRT RES PID USER NI S TIME+ IOR/s IOW/s Command
sda1 0 0 3.2 3.5 847M 140M 1586 lame 0 S 5:11.78 0 0 /usr/lib/firefox/plugin-container /usr/lib/mozilla
sda2 0 5K 2.9 2.2 258M 87.0M 639 lame 0 S 5:14.45 0 0 /usr/lib/xorg-server/Xorg -nolisten tcp :0 vt1 -au
sdb1 0 0 1.9 1.2 366M 48.5M 5215 lame 0 S 0:00.24 0 0 /usr/bin/xfce4-screenshooter
1.3 0.5 482M 19.5M 793 lame -11 S 4:33.55 0 0 /usr/bin/pulseaudio --daemonize=no
0.6 1.3 388M 50.9M 662 lame 0 S 0:47.66 0 0 xfwm4 --display :0.0 --sm-client-id 25e4efc56-809c
FILE SYS Used Total 0.0 0.0 0 0 16 root -20 S 0:00.00 0 0 kworker/1:0H
/ (sda2) 629G 915G 0.0 0.0 0 0 11 root 0 S 0:00.20 0 0 watchdog/0
_lame/tbh 851G 917G 0.0 0.0 0 0 5206 root 0 S 0:00.00 0 0 kworker/u8:2
0.0 0.4 363M 14.7M 723 lame 19 S 0:00.20 0 0 /usr/lib/tracker/tracker-miner-user-guides
0.0 0.0 0 0 37 root -20 S 0:00.00 0 0 bioset
0.0 0.5 869M 18.3M 894 lame 0 S 0:00.40 0 0 /usr/lib/evolution-data-server/evolution-calendar-
0.0 0.1 178M 3.13M 794 rtkit 1 S 0:00.60 0 0 /usr/lib/rtkit/rtkit-daemon
0.0 0.4 741M 15.9M 917 lame 0 S 0:00.30 0 0 /usr/lib/evolution-data-server/evolution-addressbo
0.0 0.0 0 0 45 root 0 S 0:00.00 0 0 fsnotify_mark
0.0 0.0 0 0 94 root 0 S 0:00.00 0 0 scsi_ah_1
0.0 0.1 332M 5.02M 791 lame 0 S 0:00.00 0 0 /usr/lib/at-spi2-core/at-spi-bus-launcher
0.0 0.0 0 0 26 root -20 S 0:00.00 0 0 kworker/3:0H
0.0 0.7 377M 28.9M 666 lame 0 S 0:00.80 0 0 xfsettingsd --display :0.0 --sm-client-id 241abe27
0.0 0.0 0 0 21 root -20 S 0:00.00 0 0 kworker/2:0H
0.0 0.0 0 0 99 root -20 S 0:00.00 0 0 scsi_tmf_2
0.0 0.1 31.5M 4.96M 354 lame 0 S 0:00.13 0 0 -zsh
0.0 0.0 0 0 4706 root 0 S 0:00.13 0 0 kworker/u8:1
0.0 0.0 0 0 29 root -20 S 0:00.00 0 0 netns

2015-11-06 09:28:29 No warning or critical alert detected
```

Helpful links

- <http://files.fosswire.com/2007/08/fwunixref.pdf>
- <http://vic.gedris.org/Manual-ShellIntro/1.2/ShellIntro.pdf>
- <https://www.loggly.com/wp-content/uploads/2015/05/Linux-Cheat-Sheet-Sponsored-By-Loggly.pdf>
- <http://www.reallylinux.com/docs/basic.shtml>
- <http://www.reallylinux.com/docs/files.shtml>

Other Topic Ideas

- Grep, Sed, and Awk – Master Regex
- Not Just Bash – A Linux shell primer
- File System Structure – Where is that one thing?
- Bash Scripting – Automate your life.
- Wifi Hacking – Secure your network by breaking in.
- Steam Life – Why Steam will forever change Linux.
- Command Line 2 – Intermediate commands.
- Other suggestions?

CLUG Info

- Chat almost any time on IRC
 - Server: `irc.freenode.net`
 - Channel: `#cochiselinux`
 - If you need help getting an IRC client working / configured, feel free to ask.
- Website
 - `CochiseLinuxUsersGroup.github.io`
 - We are working on getting a domain that is shorter.
- Mailing List
 - Directions to sign up for the mailing list can be found on the website.

This slideshow can be found at:
<http://tinyurl.com/TermBeginners>

Questions / Demo