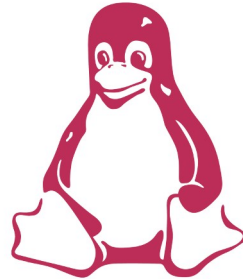# LinuxChixLA

LinuxChix Los Angeles
Be polite, Be Helpful

LinuxChix is a community for women who like Linux and for anyone who wants to support women in computing. We are an international group of Free Software users and developers, founded in 1999 with the aim of supporting women in technology specifically free and open source technology.

LinuxChixLA.org

BECAUSE CHIX DIG LINUX

http://linuxchixla.org

Twitter: (Sharon) @smichelleism
Google+: (Jill) https://plus.google.com/106856186739549581615/
Website: (Betty) http://www.99alliancegroup.com/

LinuxChixLA

LinuxChix Los Angeles
Be polite, Be Helpful

UPCOMING EVENTS

Web Server Instation/Cloud Services   TBD   TBD
-      Watch our mailing list and Meetup
       page for more information

SoCal Code Camp   USC   December 2-3
-      https://www.socalcodecamp.com/

Southern California Linux Expo (SCALE)   Pasadena   March 8-11
-      https://www.socallinuxexpo.org/

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LinuxChixLA / CLI Intro

https://lifehacker.com/5633909/who-needs-a-mouse-learn-to-use-the-command-line-for
-almost-anything

- Why the Command Line Interface (CLI)?
  - ✓ Linux is EVERYWHERE
  - ✓ The Graphical User Interface (GUI) is not (always) available to interaction with remote servers
  - ✓ You will be presented with a CLI sometime in your career as a Dev.
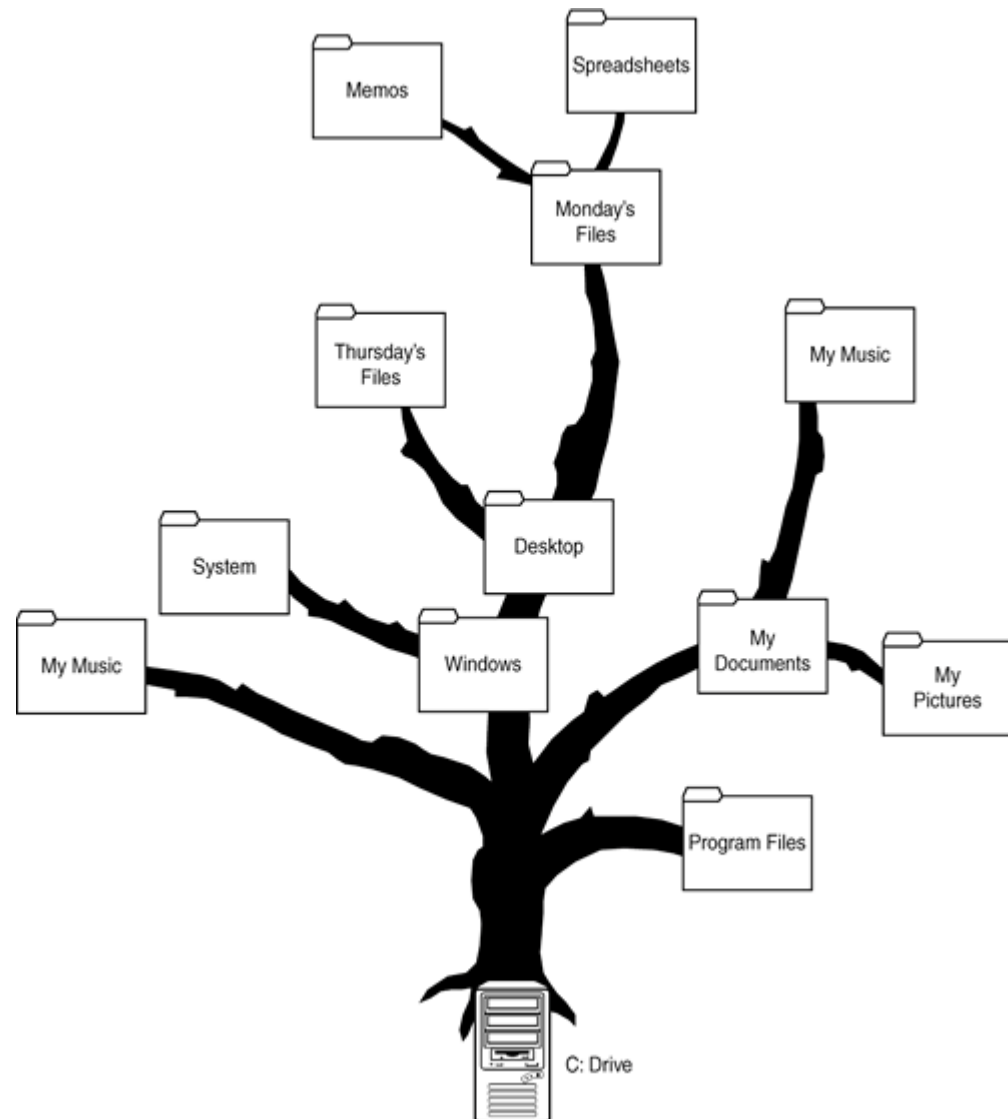
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http://linuxcommand.org/lc3_lts0010.php

- The "Terminal" is not a fatal disease.
  - ✔ It is a program which allows you to interact with the shell. The default shell on most Linux distributions is BASH (Bourne Again Shell).
  - ✔ Other shell's include ksh, sh, zsh, etc.
- The shell is a program that takes your commands (CLI) and passes them on to the OS for execution.
  - ✔ Working with the shell in a terminal window is where you'll be headed for the remainder of the this event!

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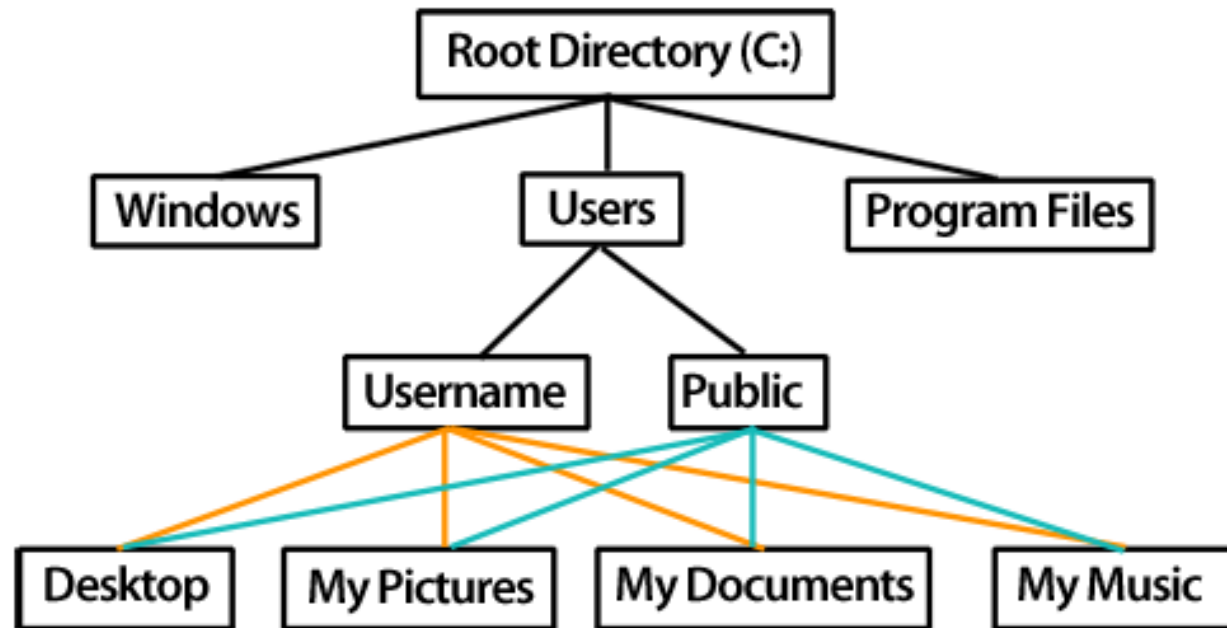
http://linuxcommand.org/lc3_lts0040.php

- Tree Structure Windows

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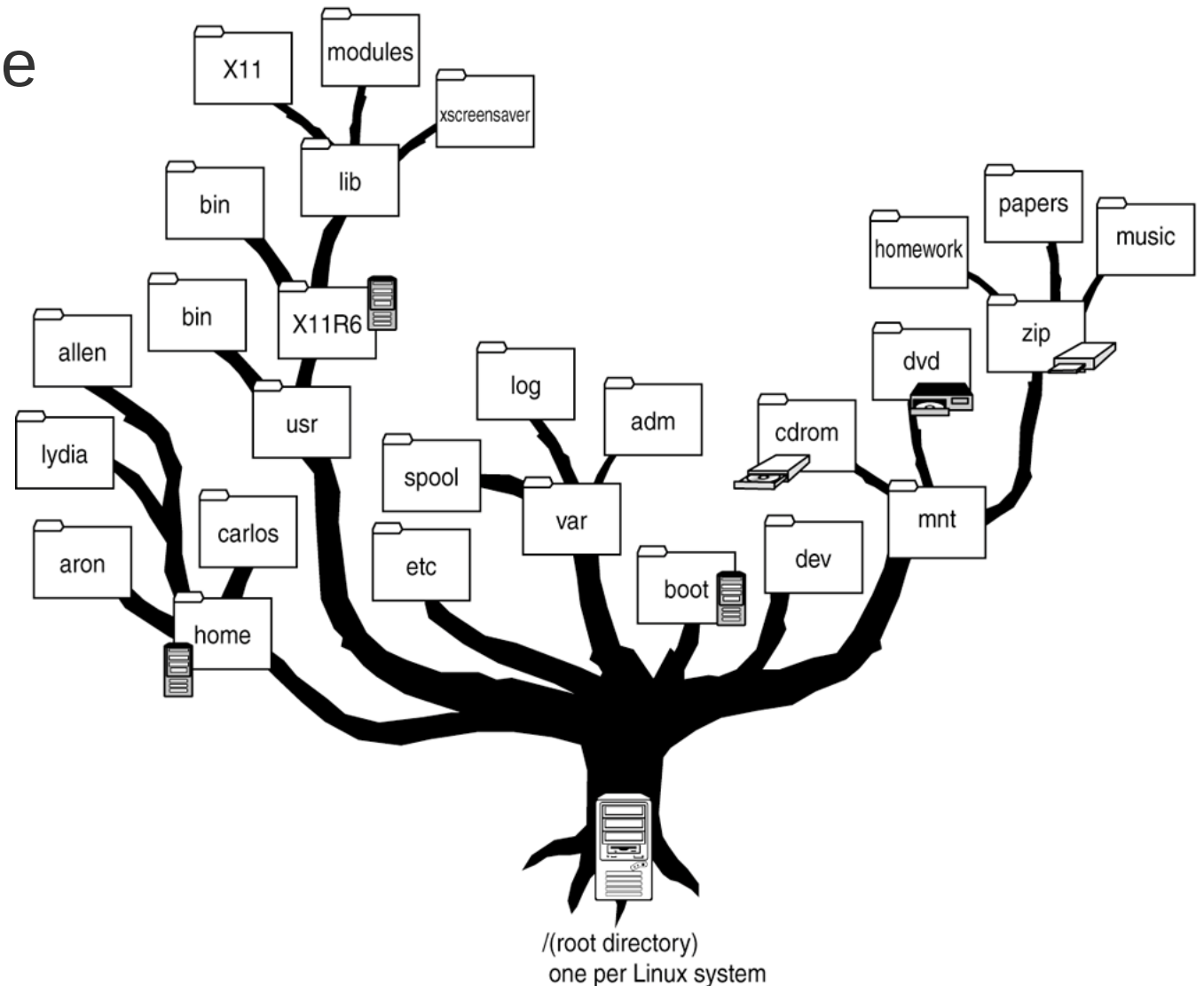
http://linuxcommand.org/lc3_lts0040.php

- Top Down Structure Windows

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http://linuxcommand.org/lc3_lts0040.php

- Tree Structure Linux

/(root directory)
one per Linux system

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http://linuxcommand.org/lc3_lts0040.php

- Top Down Structure Linux

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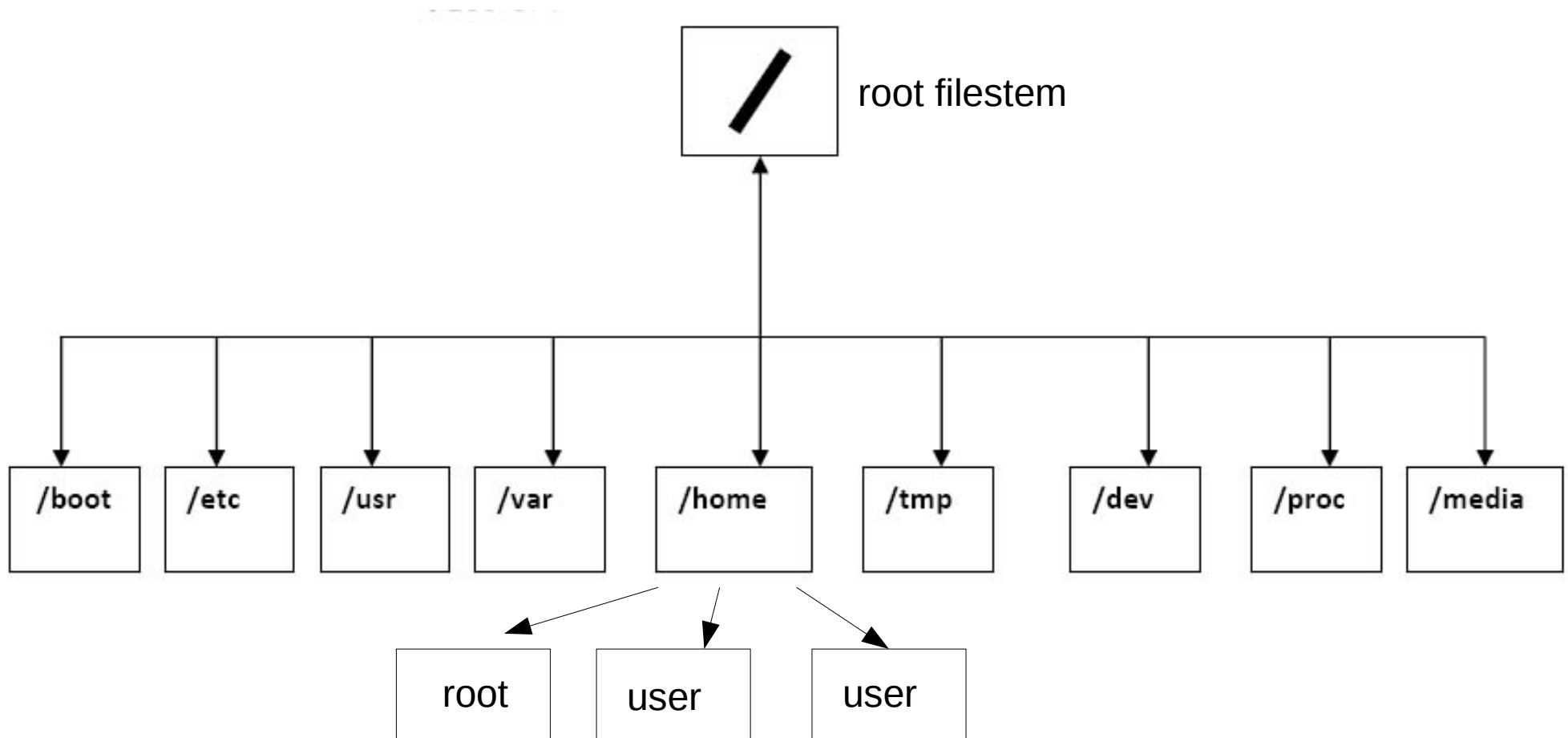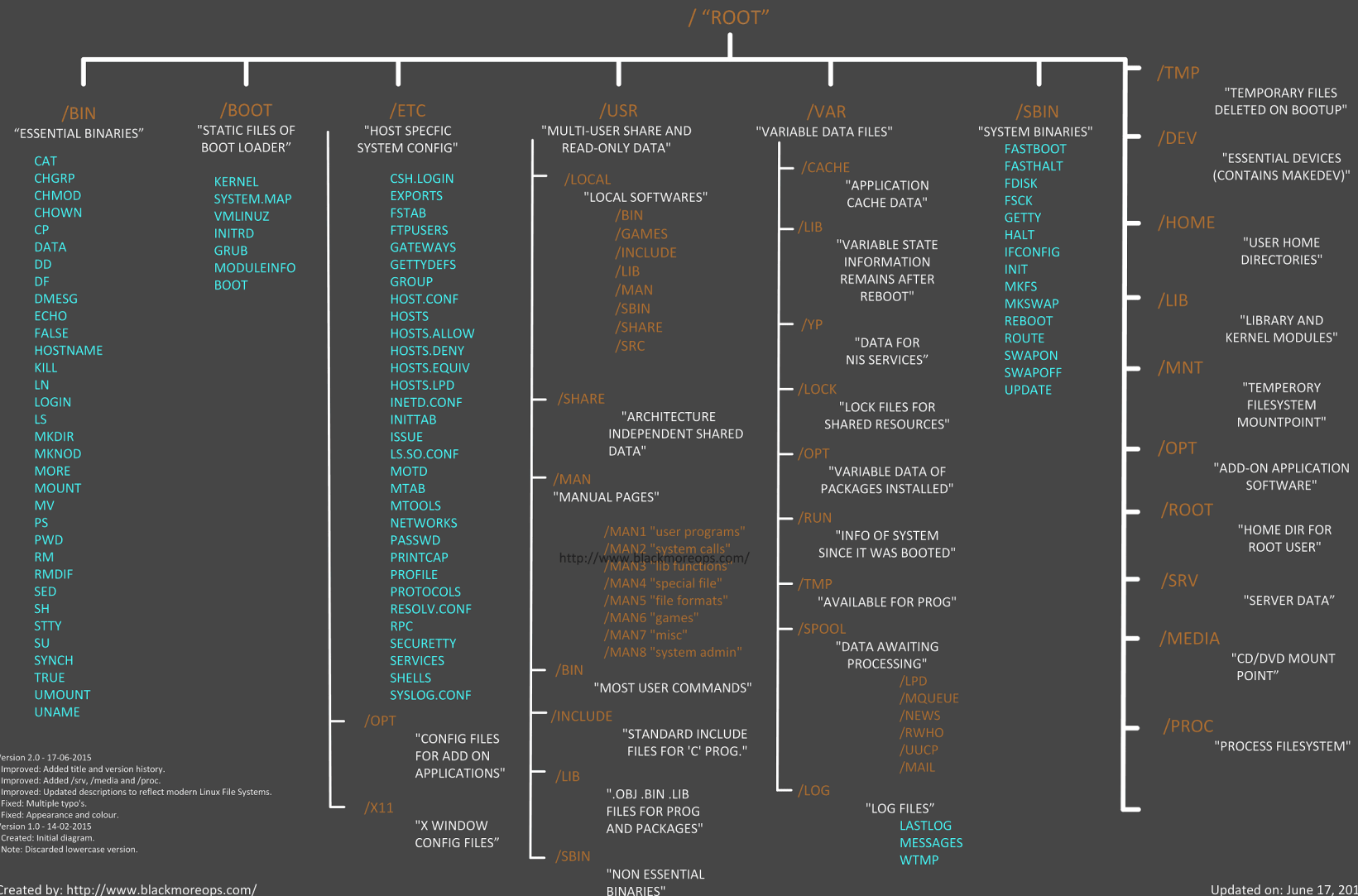
http://linuxcommand.org/lc3_lts0040.php

Linux File System Hierarchy v2.0

Created by: http://www.blackmoreops.com/

Updated on: June 17, 2015

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http://linuxcommand.org/lc3_lts0030.php

- Looking around
  - ✓ **ls** (lists files and directories)
  - ✓ **less** <filename> (what's inside)
  - ✓ **file** <filename> (what type of file is it)
  - ✓ **clear** (clears the terminal)

  CASE Matters! Linux commands are case sensitive, i.e., 'LS' is not the same is 'ls'

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http://linuxcommand.org/lc3_lts0030.php

- Options to commands
  - ✔ ls **-a**
    - · -a option shows the "hidden" files
  - ✔ ls **-l**
    - · -l option shows long listing
  - ✔ ls **-la**
    - · You can combine options

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http://linuxcommand.org/lc3_lts0030.php

- Triplet permissions (Owner, Group, Everyone)
  - ✔ ls -l

```
-rw-------   1 bshotts  bshotts      576 Apr 17  1998 weather.txt
drwxr-xr-x   6 bshotts  bshotts     1024 Oct  9  1999 web_page
-rw-rw-r--   1 bshotts  bshotts   276480 Feb 11 20:41 web_site.tar
-rw-------   1 bshotts  bshotts     5743 Dec 16  1998 xmas_file.txt


----------   -------  -------  -------- ------------- --------------
    |           |        |         |          |             |
    |           |        |         |          |         File Name
    |           |        |         |          |
    |           |        |         |          +---  Modification Time
    |           |        |         |
    |           |        |         +-------------  Size (in bytes)
    |           |        |
    |           |        +----------------------   Group
    |           |
    |           +--------------------------------   Owner
    |
    +-------------------------------------------   File Permissions
```

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https://www.linux.com/learn/understanding-linux-file-permissions
https://ryanstutorials.net/linuxtutorial/permissions.php

- Triplet permissions (User, Group, Others)
  - ✓ UGO
- RWX
  - ✓ **R**ead **W**rite e**X**ecute

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- Getting more information
  - man (Manual)
    - man <command>
    - man -k
    - apropos
  - Help
    - <command> --help or -h
  - Info
    - info <command>

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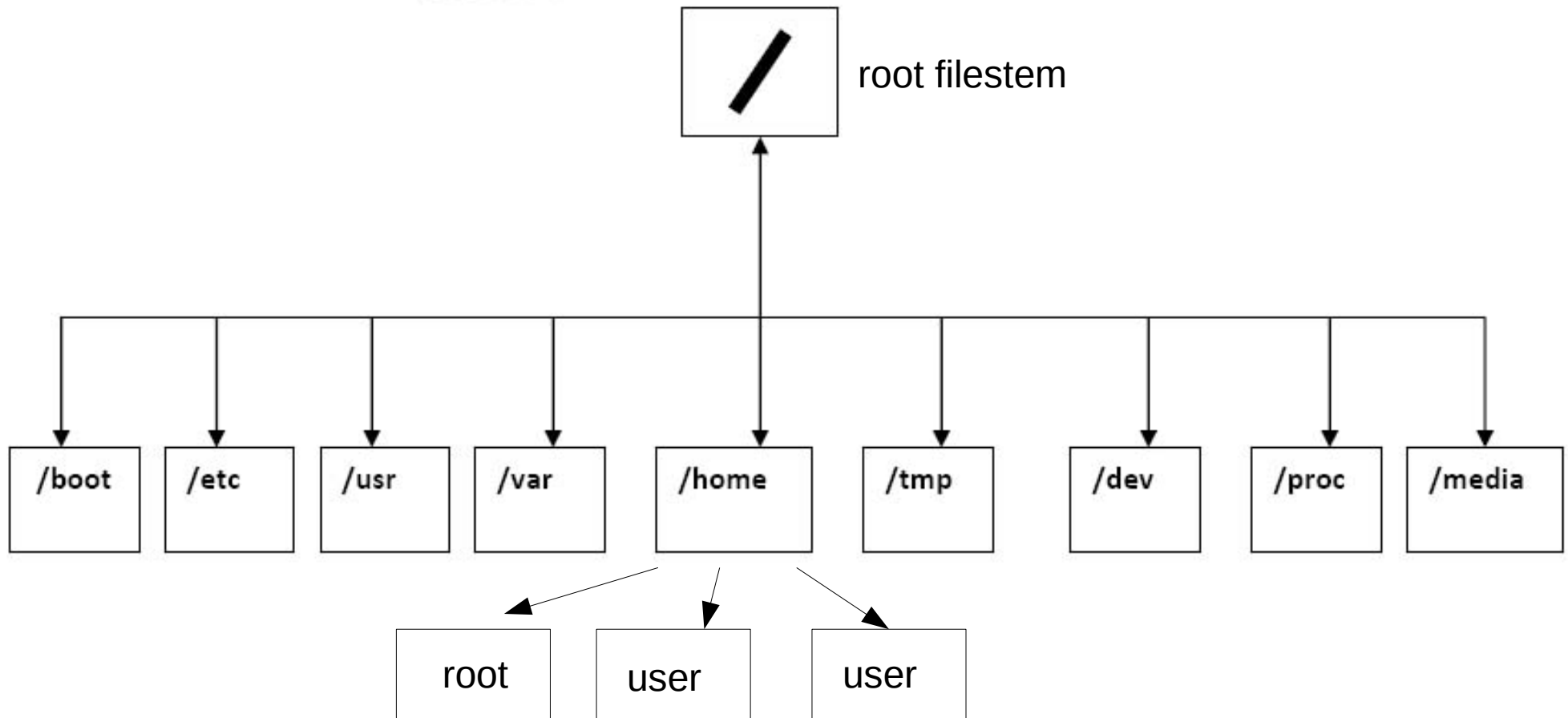
http://linuxcommand.org/lc3_lts0020.php

- Getting Around
  - **cd** <directory> (<u>c</u>hanges to a new <u>d</u>irectories)
    - the . directory (current)
    - the .. directory (parent)
    - always go home with **cd** or **cd ~**
    - return from whence you came with **cd -**
  - **pwd** (<u>p</u>rint <u>w</u>orking <u>d</u>irectory, "Where am I?")

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http://linuxcommand.org/lc3_lts0020.php

- Absolute vs. Relative
  - ✓ ls /etc   vs. ls ../../etc

root filestem

/boot | /etc | /usr | /var | /home | /tmp | /dev | /proc | /media

root   user   user

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http://linuxcommand.org/lc3_lts0050.php

- Changing things up
  - **cp** (<u>co</u>py files and directories)
    - cp <filename> <filename>
    - cp -i
    - cp -r
  - **rm** (<u>rem</u>oves files)
    - rm <filename>
  - **mv** (<u>mov</u>es, aka renames, files and directories)
    - mv <filename> <filename>

  rm -r -f (DANGER WILL ROBINSON!)

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- Changing things up
  - ✓ **rmdir** (<u>rem</u>oves EMPTY <u>dir</u>ectories)
    - rmdir -p
  - ✓ **mkdir** (<u>m</u>a<u>k</u>es <u>dir</u>ectories)
    - mkdir -p

rm -r -f (DANGER WILL ROBINSON!)

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https://www.tecmint.com/13-basic-cat-command-examples-in-linux/

- Looking Inside
    - **less** <filename> (file pager)
    - **cat** <filename> (concatenate)
        - cat -n
        - cat > test.txt
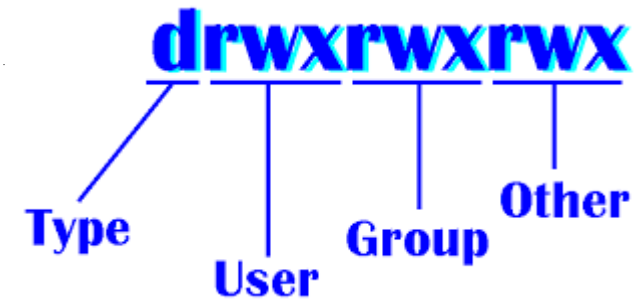   - cat >> test.txt
    - head
    - tail

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http://linuxcommand.org/lc3_lts0090.php

- Permissions Redux
  - ✓ **whoami**
  - ✓ **su** (Super user)
  - ✓ **sudo** (Super user Do)

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- Permissions Redux
  - ✔ **chmod** (<u>CH</u>ange, or <u>mod</u>ify, a file/directory access permissions)
    - · chmod o+w <filename/directory>

      gives write permissions to Others
  - ✔ **chown** (<u>CH</u>ange file/directory <u>own</u>er)
    - · chown <from> <to> <filename/directory>
  - ✔ **chgrp** (<u>CH</u>ange file/directory <u>gro</u>up)
    - · chgrp <from> <to> <filename/directory>