

Linux Directory Structure

The Filesystem Hierarchy

What You Will Learn

Linux directory structure.

Location of operating system components.

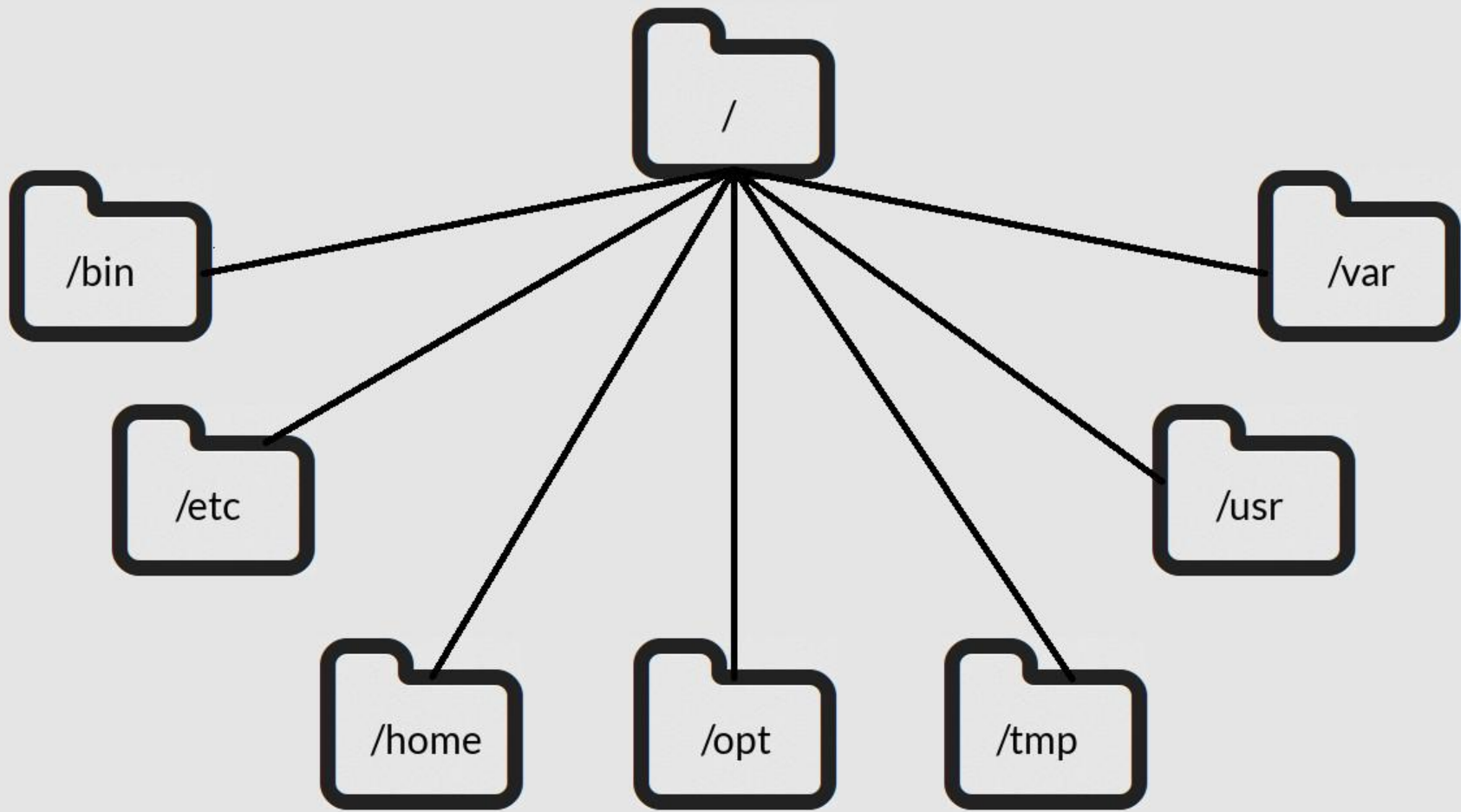
Application directory structures.

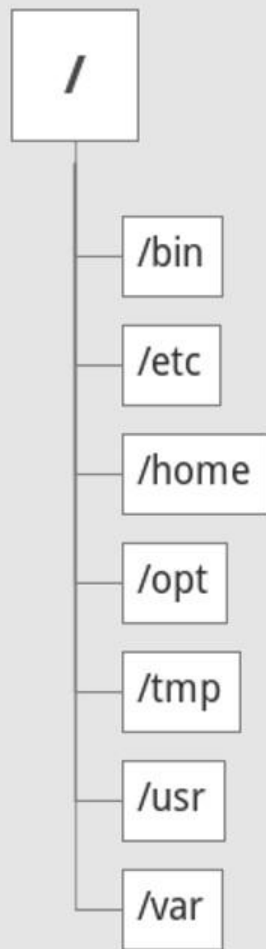
Why?

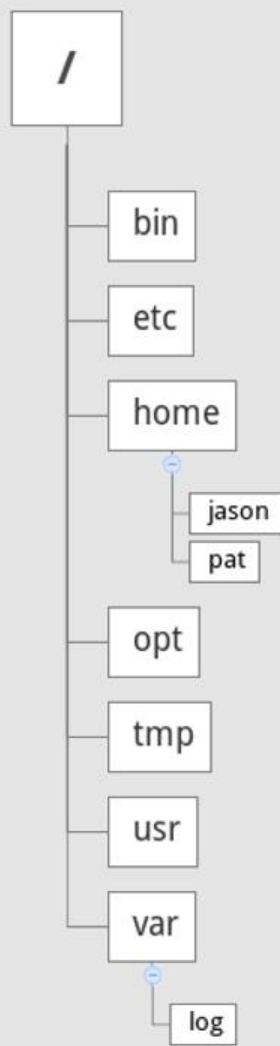
- Increases your overall knowledge of Linux.
- Aids in navigation.
- Saves you time.
- Improves your troubleshooting skills.
- Makes you a better user and administrator.
- Enhances your overall experience of using Linux.

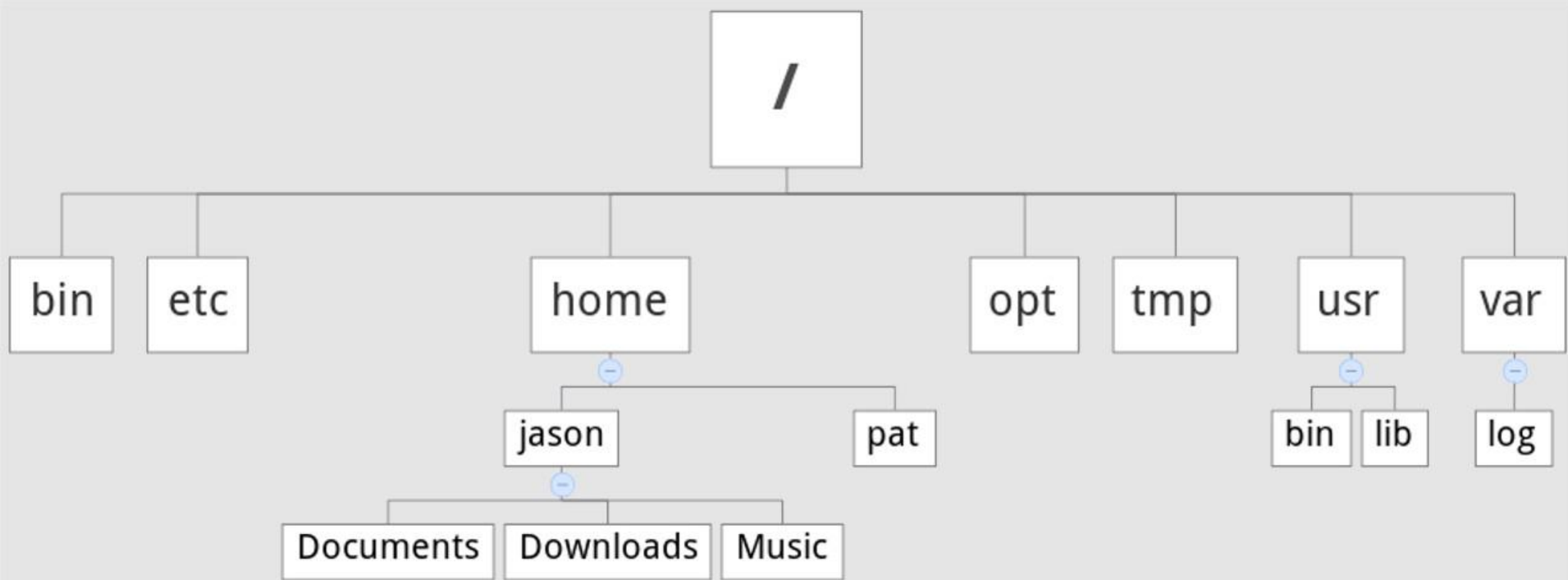
Common Directories

/	“Root,” the top of the file system hierarchy.
/bin	Binaries and other executable programs.
/etc	System configuration files.
/home	Home directories.
/opt	Optional or third party software.
/tmp	Temporary space, typically cleared on reboot.
/usr	User related programs.
/var	Variable data, most notably log files.









Comprehensive Directory Listing

- / “Root,” the top of the file system hierarchy.
- /bin Binaries and other executable programs.
- /boot Files needed to boot the operating system.
- /cgroup Control Groups hierarchy.
- /dev Device files, typically controlled by the operating system and the system administrators.
- /etc System configuration files.

Comprehensive Directory Listing

/export	Shared file systems.
/home	Home directories.
/lib	System Libraries.
/lib64	System Libraries, 64 bit.
/lost+found	Used by the file system to store recovered files after a file system check.
/media	Used to mount removable media (CD-ROMs, USBs)

Comprehensive Directory Listing

- /mnt Used to mount external file systems.
- /opt Optional or third party software.
- /proc Provides info about running processes.
- /root The home directory for the root account.
- /sbin System administration binaries.
- /selinux Used to display information about SELinux.

Comprehensive Directory Listing

- `/srv` Contains data which is served by the system.
- `/srv/www` Web server files.
- `/srv/ftp` FTP files.
- `/sys` Used to display and sometimes configure the devices known to the Linux kernel.
- `/tmp` Temporary space, typically cleared on reboot.

Comprehensive Directory Listing

/usr	User related programs, libraries, and docs.
/usr/bin	Binaries and other executable programs.
/usr/lib	Libraries.
/usr/local	Locally installed software that is not part of the base operating system.
/usr/sbin	System administration binaries.
/var	Variable data, most notably log files.
/var/log	Log files.

Application Directory Structures

/usr/local/crashplan/bin

/usr/local/crashplan/etc

/usr/local/crashplan/lib

/usr/local/crashplan/log

Application Directory Structures

/opt/avg/bin

/opt/avg/etc

/opt/avg/lib

/opt/avg/log

Application Directory Structures

/etc/opt/myapp

/opt/myapp/bin

/opt/myapp/lib

/var/opt/myapp

Application Directory Structures

`/usr/local/bin/myapp`

`/usr/local/etc/myapp.conf`

`/usr/local/lib/libmyspp.so`

Application Directory Structures

/opt/acme

/opt/acme/bin

/opt/acme/etc

Application Directory Structures

/opt/google

/opt/google/chrome

/opt/google/earth

Application Directory Structures

/opt/web-team

/opt/acme/web-team

/usr/local/acme/web-team

Summary

The most common directories to know are:

/

/bin

/etc

/home

/opt

/tmp

/usr

/var

Summary

Applications that are not part of the base OS
can be installed in:

`/usr/local`

`/opt`