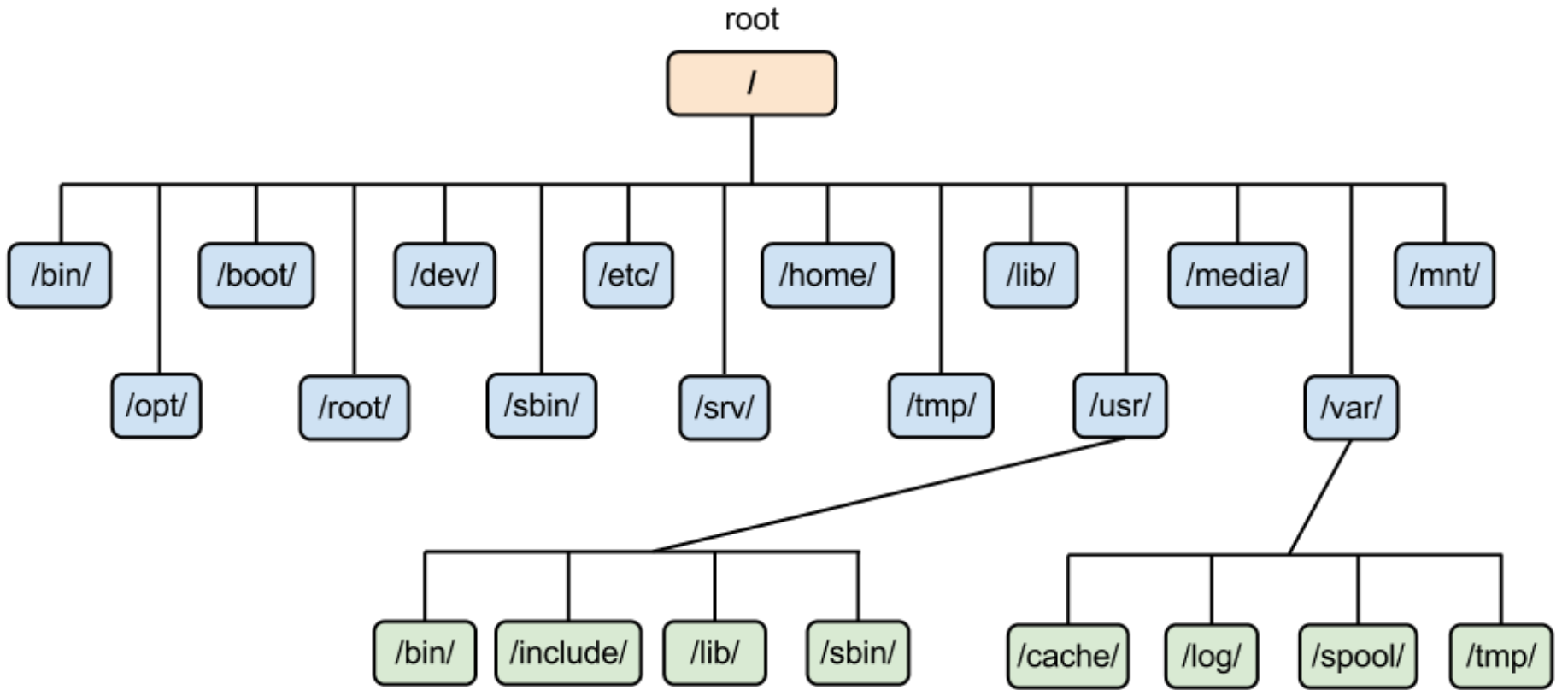


# Toppnivåkatalogene i filsystemet i Linux

# Toppnivåkataloger

- Det øverste nivået i det globale katalogtreet i Linux betegnes med '/' og kalles "root"
- Merk at "root" også er navnet på "superbrukeren" som er systemadministrator på maskinen
- I root skal det normalt bare ligge underkataloger\*
- Disse direkte underkatalogene av root kalles *toppnivåkataloger* (top-level directories)
- Toppnivåstrukturen er relativt standardisert

\*: Og evt. en link til en fil med den ferdig kompilerte Linux-kjernen



## **/bin**

- Stores common system executable programs (binary files) used by all users

## **/sbin**

- Stores system executable programs usually used by root (or only used by root)

## **/root**

- The root user's home directory

## **/etc**

- Configuration files for system administration...

## **/boot**

- The boot directory
- It contains the files and code needed to load the Linux operating system
- It also contains the boot loader for Linux, usually GNU Grub or (rarer) The Linux Loader (LILO)
- The file `vmlinuz` is a partially compressed version of the Linux kernel, `vmlinux`
- Its full name might be something like:

```
vmlinuz-2.6-32-279.e16.x86_64
```

## **/lib**

- Stores shared (binary) library files used by many software packages, in particular open-source software
- This is in some ways an extension to the `/usr` directory containing application software
- You might have two directories, `/lib` and `/lib64`

## **/lost+found**

- A directory that stores files found to be corrupted upon the next system initialization – hopefully empty!
- These files might have been corrupted because they were still open the last time the system was shutdown indicating an inappropriate shutdown

## **/tmp**

- Temporary files stored here by running software
- Often stores domain sockets
- The only directory labeled `777` (world writable)
- Empty after each reboot

## **/mnt**

- Temporary mount point for file systems that the system administrator is mounting for a short time

## **/opt**

- For [3rd party software](#) (instead of `/usr` )
- Today most system administrators put all software in `/usr` so `/opt` is of little to no use

## **/dev**

- Devices treated like files for easy access, including:
  - sda1, sda2, sda3, etc for SATA/SCSI hard disk drives
  - hda1, hda2, hda3, etc for IDE/EIDE/ATA disk drives
  - lp0, lp1, lp2, etc are printers
  - loop0, loop1, loop2, etc are used for special types of block devices like floppy disks and optical drives
  - ram0, ram1, ram2, etc are RAM-disks

## **/sys**

- Contains information on other devices such as power management, the bus, firmware



## **/proc**

- This directory stores information on every running process, including the Linux kernel
- Kernel entries are at the top level, other processes are in subdirectories whose name is their PID

- Files/directories include:

`cmdline` the instruction that launched the process

`environ` environment variables (if any)

`fd` file descriptors

`io` I/O utilization

`cwd` current working directory

`exe` location to executable file

## **/etc**

- Files and directories for configuring system, services and software
- Most important directory for sys.adm.
- Some files and directories commonly found in `/etc` :

`anacrontab` – config. file for the anacron program

`at.allow`, `at.deny` – files which list users allowed to or not allowed to use `at`

`bashrc` – the file which executes whenever a new bash shell opens; edited by the system administrator

`cron*` – directories and configuration files that support the crontab daemon for scheduling processes

## `/etc`

- More files and directories commonly found in `/etc` :

`cups/` – the directory containing the Common Unix Printing System configuration files

`dnsmasq.d/` – configuration for the `dnsmasq.d` daemon which performs DNS forwarding

`fonts/` – directory of font configuration files for system fonts

`hosts`, `hosts.allow`, `hosts.deny` – the host tables, files that store IP alias to IP address mapping and lists of hosts allowed to or not allowed to connect to this computer

## `/etc`

- More files and directories commonly found in `/etc` :

`httpd/` or `apache/` – directory containing the Apache web server configuration, data and executable files (if not installed elsewhere)

`init`, `inittab`, `init.d/` – the startup service, a configuration file storing the default runlevel, and a directory containing all system service control scripts

`logrotate.conf`, `logrotate.d/` – configuration file and daemon for log rotation

`passwd` – the user account file

## **/home**

- User home directories, one per user account (unless a user does not have one)

## **/usr**

- Application software and support files are stored here
- There is a structure to this directory including subdirectories of bin, etc, games, include, lib, lib64, local, sbin, share, src, X11R6
- The local subdirectory differentiates software that is available via a file server versus software available only locally (mostly for historic purposes)

## **`/var`**

- System and software (variable-sized) data files
- Files typical grow over time so we need plenty of space
- Subdirectories may include:

<code>account</code>	account information
<code>cache</code>	cached man pages for easy retrieval
<code>log</code>	log files as generated by various software
<code>mail</code>	user email, if you run mail software
<code>spool</code>	for printers
<code>www</code>	web space for the Apache web server