File System Hierarchy

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October 17, 2010

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What is File System

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- Eg:- fat, ntfs, ext4, ext3.....

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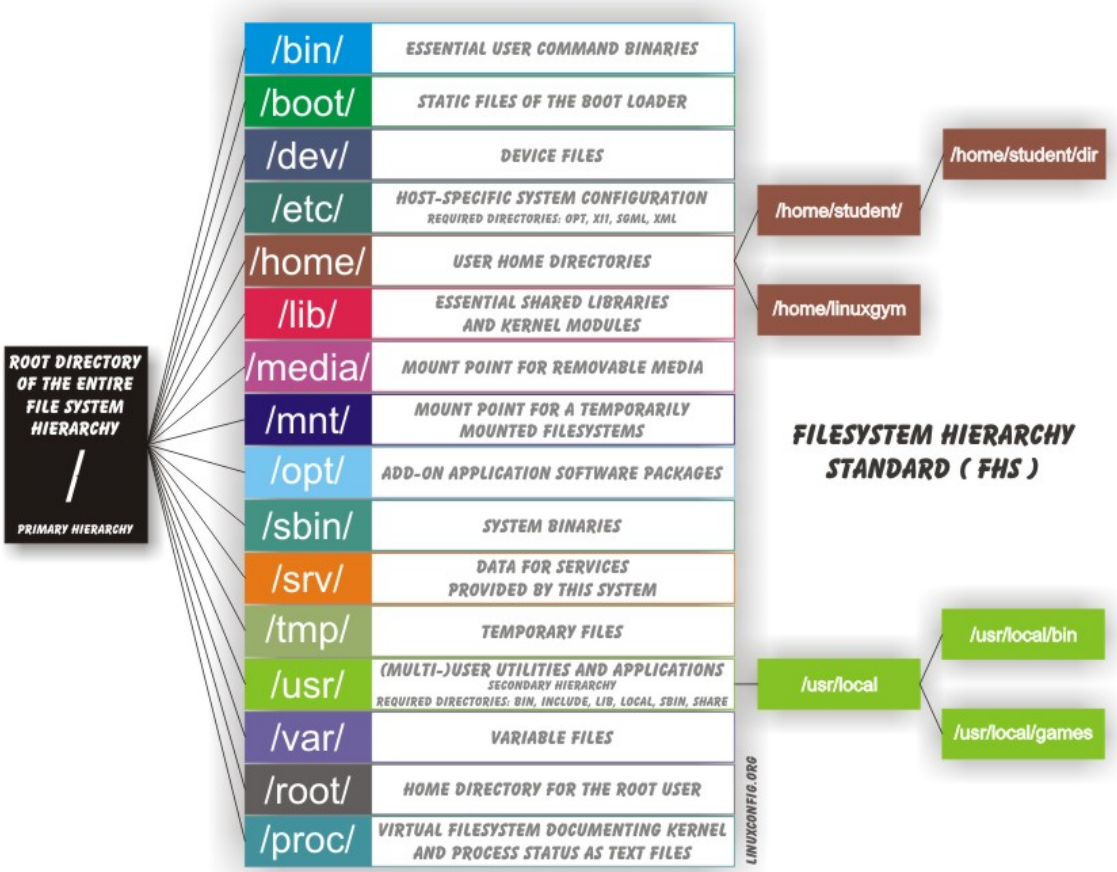
- At the top of the hierarchy is invariably the root path which is represented by '/'.
- All other directories are created beneath this root path in linux.

Flow Chart


ROOT DIRECTORY OF THE ENTIRE FILE SYSTEM HIERARCHY
/
PRIMARY HIERARCHY
/bin/
ESSENTIAL USER COMMAND BINARIES
/boot/
STATIC FILES OF THE BOOT LOADER
/dev/
DEVICE FILES
/etc/
HOST-SPECIFIC SYSTEM CONFIGURATION
REQUIRED DIRECTORIES: OPT, X11, SGML, XML
/home/
USER HOME DIRECTORIES
/lib/
ESSENTIAL SHARED LIBRARIES AND KERNEL MODULES
/media/
MOUNT POINT FOR REMOVABLE MEDIA
/mnt/
MOUNT POINT FOR A TEMPORARILY MOUNTED FILESYSTEMS
/opt/
ADD-ON APPLICATION SOFTWARE PACKAGES
/sbin/
SYSTEM BINARIES
/srv/
DATA FOR SERVICES PROVIDED BY THIS SYSTEM
/tmp/
TEMPORARY FILES
/usr/
(MULTI-)USER UTILITIES AND APPLICATIONS
SECONDARY HIERARCHY
REQUIRED DIRECTORIES: BIN, INCLUDE, LIB, LOCAL, SBIN, SHARE
/var/
VARIABLE FILES
/root/
HOME DIRECTORY FOR THE ROOT USER
/proc/
VIRTUAL FILESYSTEM DOCUMENTING KERNEL AND PROCESS STATUS AS TEXT FILES
/home/student/
/home/student/dir
/home/linuxgym
/usr/local
/usr/local/bin
/usr/local/games
FILESYSTEM HIERARCHY STANDARD (FHS)
LINUXCONFIG.ORG

/bin

- Bin stands for binary.

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- Contains shells like bash, csh etc as well as much used commands like cp, mv, rm, cat, ls.

/boot

- Contains the boot loader files.

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- Grub and linux kernel.

/dev

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- Highlights one important characteristic of the Linux filesystem - everything is a file or a directory.
- No real subfolder.
- When you first boot up ur computer it detects your hardware and place folder and files representing your hardware in the dev directory.

/etc

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- This is a good directory to backup often. Saves lot of re-configuration later if you re-install or lose your current installation.

/home

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- containing saved files, personal settings, etc.

/media

- Mount point for removable disk like CDROM, pendrive.

/mnt

- Mount point for temporary mounted file system.

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- Mounting is the process by which you make a filesystem available to the system.

/opt

- This directory contains all the software and add-on packages that are not part of the default installation.

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- Again, this directory is not used very often as it's mostly a standard in Unix installations.

/root

- We talked about user home directories earlier and well this one is the home directory of the user root.

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- Not to be confused with the system root.

/proc

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- maintains highly dynamic data on the state of your operating system.
- a new /proc file system is created every time your Linux machine reboots.
- Everything regarding your hardware like bluetooth, different slots, bus etc. is stored in it.

/sbin

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- This directory contains all the binaries that are essential to the working of the system.

/tmp

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- This directory is cleared out at boot or at shutdown.

- Unix System Resources

/usr

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- Secondary hierarchy for read-only user data; contains the majority of (multi-)user utilities and applications.

/var

- Variable files whose content is expected to continually change during normal operation of the systemsuch as logs, spool files, and temporary e-mail files. Sometimes a separate partition.

Thank You!!!