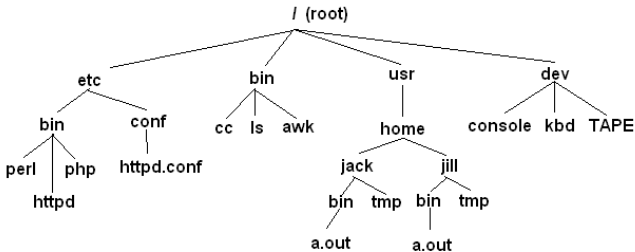


The Unix/Linux file system

Overview

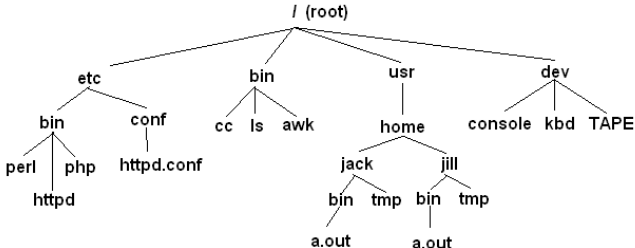
- ▶ KIP Jupyter server, Linux, Mac, Android, iOS systems are Unix-based systems (or at least share the design principles of the original Unix system)
- ▶ Windows handles things in similar fashion with some syntactical differences (e.g. Win uses back-slash \ for paths vs. the standard Unix slash /)
- ▶ we are only talking here about the tree-like file structure, not the technicalities of actual implementation, which is a different topic

Tree-like structure of Unix file systems



- ▶ Hierarchical, upside-down tree-like structure, root directory /
- ▶ Where am I? → pwd (“print working directory”)
- ▶ I want to go to . . .? → cd (“change directory”)
- ▶ List all files in current directory → ls

Tree-like structure of Unix file systems



- ▶ I want to create a new (sub)directory? → `mkdir <name>`
- ▶ I want to go one level up? → `cd ..` (only one possibility)
- ▶ I want to go one level down? → `cd <name>` (usually several possibilities)
- ▶ The current directory is indicated by a single dot (“.”)
- ▶ Many users (like “jack” and “jill”) share the file system → control via *access rights*

Unix file systems – Keeping it tidy

- ▶ The file system is supposed to help keep files that belong together into the same subdirectory
- ▶ For UKSta you might try to order things by day, for example:
 - ▶ \$ **cd** → change to home directory
 - ▶ \$ **mkdir UKSta22** → create main directory for everything that is UKSta related
 - ▶ \$ **cd UKSta22** → change to newly created directory
 - ▶ \$ **mkdir day1** → create subdirectory for the first day
 - ▶ \$ **cd day1** → change to day1