

CMSC 2 Introduction to the Internet

Laboratory Handout 1

Familiarization to Linux Environment

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What is Linux?

Linux

- Created as a hobby by a young student, Linus Torvalds at the University of Helsinki in Finland.
- He began his work in 1991 when he released version 0.02 and worked until 1994 when version 1.0 of the Linux Kernel was released.

Kernel

- Central component of most operating systems
- Developed and released under the GNU General Public License and source code is freely available to everyone.
- It is one of the most prominent examples of free and open source software.

What kind of Linux we are using: UBUNTU

Ubuntu

- named after the Southern African ethical ideology Ubuntu (“humanity towards others”)
- Ubuntu provides an up-to-date, stable operating system for the average user, with a strong focus on usability and ease of installation.
- Ubuntu also emphasizes accessibility and internationalization to reach as many people as possible.

What are the programs that we will use?

Windows VS Ubuntu terminologies

	Windows	Ubuntu
Documents	Wordpad	OpenOffice
Web Browser	Internet Explorer	Mozilla Firefox
Text Editor	Notepad	Kwrite / Gedit
Photo editor	Paint	GIMP
Terminal	Command Prompt	Terminal

Differences between Windows and Linux

Format to access a directory

Windows	Ubuntu
D:\Folder\subfolder\file.txt	/Folder/subfolder/file.txt

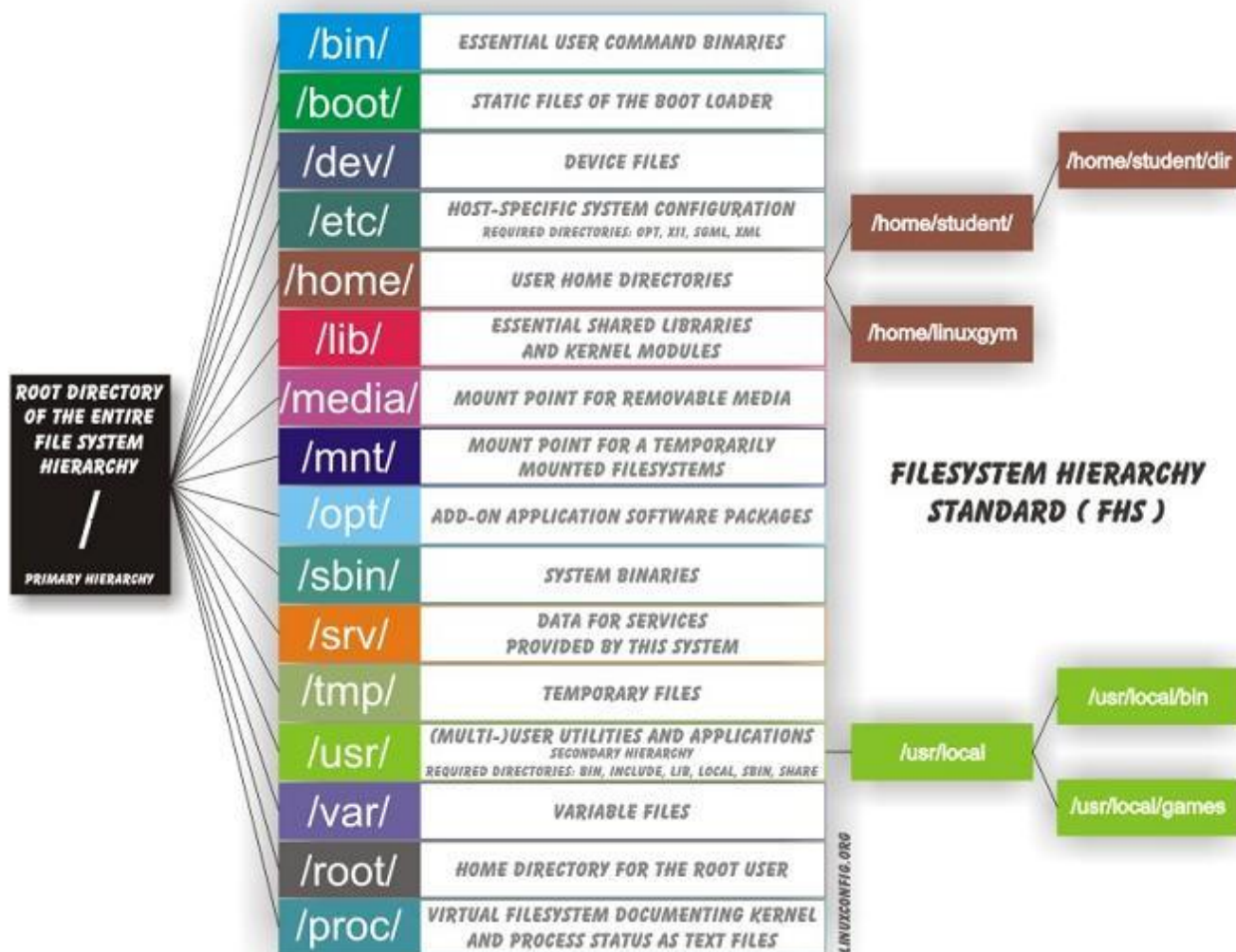
You'll notice that the slashes are forward slashes in Linux versus backslashes in Windows. Also, there is no drive name (C:, D:, etc.) in Linux. At boot, the 'root partition' is mounted at /. All files, folders, devices and drives are mounted under /. Though it is not apparent from this example, it is important to note that files and folders in Linux are case sensitive.

/Folder/subfolder/file.txt is not the same as /folder/subfolder/file.txt.

Distribution

Windows	Ubuntu
Proprietary	Open Source

Linux Directory Structure



/ (forward slash) This is the root directory. The mothership. The home field. The one and only top directory for your whole computer. EVERYTHING starts here. So, when you type '/home' what you're really saying is "start at / and then go to the home directory".

/root this is where the root user lives. The root user is the god of your system. Root can do anything, up to and including Removing your entire file system. So be careful using root.

/home Here's where your data is stored. Config files specific to users, your Desktop folders (which makes your desktop what it is), and any data related to your user. Each user will have their own /home/username folder, with the exception of the root user.