Summary :

- Background

    Why it is interesting for you to learn Linux

    Information on Linux, distributions…

- Dos and don’ts

- Labs

47% of **professional developers** use Linux-based operating systems. (Statista)

Linux **powers 85%** of smartphones. (Hayden James)

The Linux **market size worldwide will reach $15.64 billion** by 2027. (Fortune Business Insights)

The **world's top 500 fastest supercomputers** all run on Linux. (Blackdown)

Today, there are over **600 active** Linux distros. (Tecmint)

Linux is **more secure** than Windows. For instance, some governments and military forces (Dutch police, US Department of Defense already migrated to Linux)

It is **less subject to piracy** : less virus, effective way to set permissions, it is **open source***

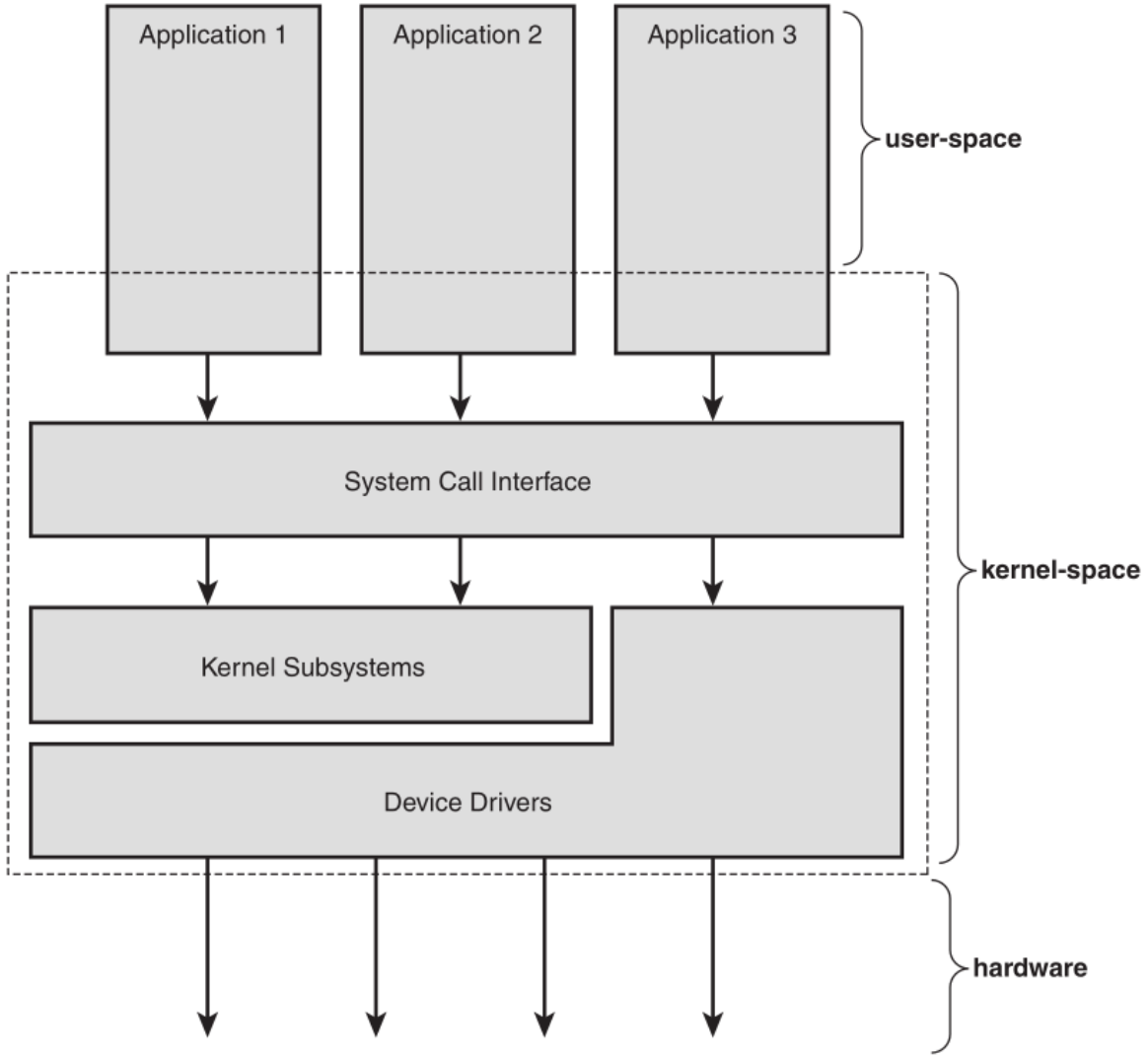
Linux is **open source**, it means that anybody can review the source code : It has a large community of developers reviewing its code and making sure there are no back doors.

Because of that, you might find linux **more stable** than windows in some cases

Linux **is lighter** than Windows or MacOS : You can give a second life to an old PC

However, linux is **less polished** and **less aesthetically** pleasing and functional than Windows or MacOS out of the box.

How a linux system is working ?



The layer for system-level tasks like configuration and software install. This includes the shell, or command line, daemons, processes that run in the background, and the desktop environment.

The **base component** of the OS. Without it, the OS doesn't work. The kernel manages the **system's resources** and **communicates** with the hardware. It's responsible for **memory**, **process**, and **file management**.

Dos

- Take regular backups of your system. (use timeshift for instance)
- If you edit any file create a copy
  Ex : sudo cp /etc/fstab /etc/fstab.old
- Be careful when you do a sudo command on a system file (like fstab)
- Be organized in your system : Use one place to build, one place to install your softwares…
- RTFM also known as READ THE F*CKING MANUAL ! (seriously, read the manual or help options is important)

Don’ts

- NEVER change permissions on files unless you know what to do (chmod)
- NEVER run the command « sudo rm -rf / ». It delete recursively, and without confirmation the root folder (and you entire system)
- NEVER copy/paste command lines you see online without thinking or knowing what they do !

You can start the labs !

- groups of 2 or 3

- report where you write answers (60 % of the final grade)

- assignment to do before the end of the Linux session (40 % of the final grade)

> ? **Give the commands to...** 

If you see this symbol : answers are to be wrote down to your report, otherwise they are not