History of Linux, Linux Kernel vs Linux Distributions

History

Linux, computer operating system created in the early 1990s by Finnish software engineer Linus Torvalds and the Free Software Foundation (FSF).

While still a student at the University of Helsinki, Torvalds started developing Linux to create a system similar to MINIX, a UNIX like operating system. In 1991 he released version 0.02 & in 1994 Version 1.0 of the Linux kernel, the core of the operating system, was released.

About the same time, American software developer Richard Stallman and the FSF made efforts to create an open-source UNIX-like operating system called GNU. In contrast to Torvalds, Stallman and the FSF started by creating utilities for the operating system first. These utilities were then added to the Linux kernel to create a complete system called GNU/Linux, or, less precisely, just Linux.

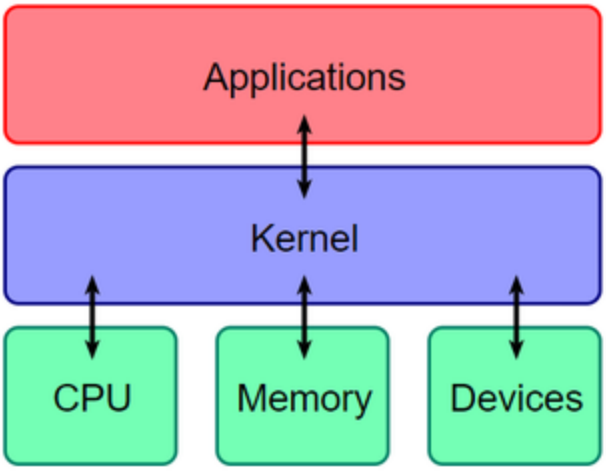
Linux grew throughout the 1990s because of the efforts of hobbyist developers. Although Linux is not as user-friendly as the popular Microsoft Windows and Mac OS operating systems, it is an efficient and reliable system that rarely crashes. Combined with Apache, an open-source Web server, Linux accounts for most of

- The servers used on the Internet.
- Because it is open-source, and thus modifiable for different uses, Linux is popular for systems as diverse as cellular telephones and supercomputers.
- Android, Google's operating system for mobile devices, has at its core a modified Linux kernel,
- Chrome OS, Google's operating system for chromebook is also Linux-based.
- The addition of user-friendly desktop environments, office suites, Web browsers, and even games helped to increase Linux's popularity and make it more suitable for home and office desktops though adption is low compared to Windows). New distributions - MX Linux, Manjaro, Linux Mint, and Ubuntu

Source - https://www.britannica.com/technology/Linux

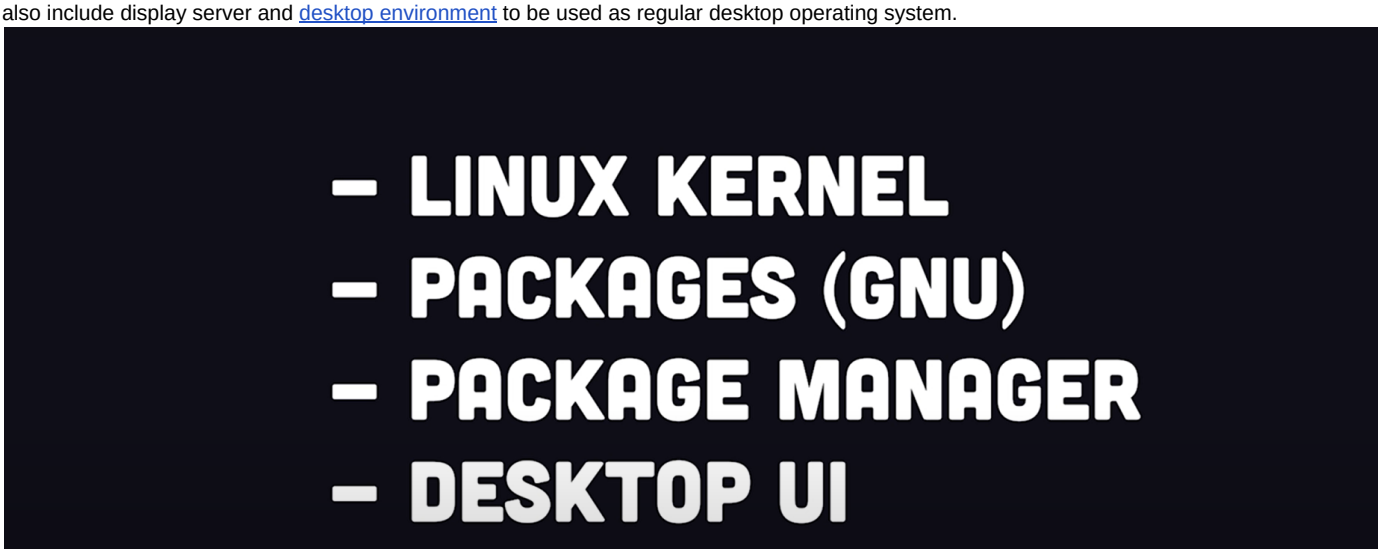
Linux Kernel & Linux Distribution

Let's discuss what is a **Linux distribution**, why it is called a distribution (or distro) and how is it different from the **Linux kernel** (why some people insist of calling Linux as GNU/Linux).



What is a Linux distribution?

A Linux distribution is a complete operating system composed of the Linux kernel, GNU tools, additional software and a package manager. It may also include display server and desktop environment to be used as regular desktop operating system.



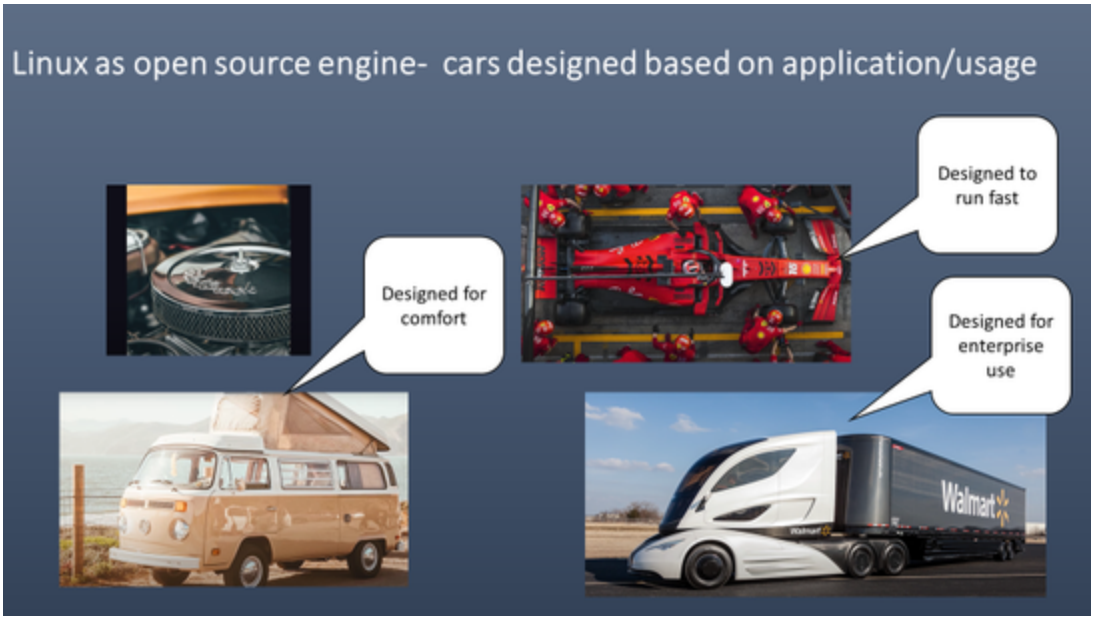
The term is Linux distribution (or distro in short form) because an entity like Debian or Ubuntu 'distributes' the Linux kernel along with all the necessary software and utilities (like network manager, package manager, desktop environments[1] etc) so that it can be used as an operating system.

Your distributions also takes the responsibility of providing updates to maintain the kernel and other utilities.

So, **Linux is the kernel** whereas the **Linux distribution is the complete operating system**. This is the reason why they are also sometime referred as Linux-based operating systems.

To understand that, think of operating systems as vehicles and kernel as engine. You cannot drive an engine directly. Similarly, you cannot use kernel directly.

A **Linux distribution** can be seen as a **vehicle manufacturer like Toyota or Ford that provides ready to use cars just like Ubuntu or Fedora distributions provide you a ready to use operating systems** based on Linux. Linux is the open source engine and linux distributions are the cars created using that engine.



https://itsfoss.com/what-is-linux-distribution/

Animated description of Linux vs distribution -

Kernel, GNU, Desktop Environment, Software nd Package management and community

Linux: Kernel, Distributions, and Desktop Environments

Below vblog covers free software that you can use to be productive, and how this relates to the Kernel, the distros, and the desktop. A) Desktops: i) Standard: Cinnamon, Mate, Plasma, Deepin, Gnome ii) Lightweight: LXDE, LXQt, Xfce B) Distribution types: i) bleeding edge ii) stable iii) older (i386) hardware iv) privacy v) gaming