## In Support of OS

- It's open source
  - Linux is a completely open source operating system, which goes along the theme of Google Code-In and OpenMRS. Anybody can view the source code behind the project. Being open source is a big plus, as it has a huge community following of people that support it. With this support, the source code is being continuously updated and revised with input from many people.
- It's free
  - Linux is completely free to use, there is absolutely no charge to install or download. This makes a huge impact for people who don't want to pay for an operating system for their computer, which makes Linux the ideal choice in those cases. Linux overall has a free, open source mindset. Most, if not all of the applications that come with distributions of Linux are also free, such as those in the GNU library.
- It's very flexible
  - With the hundreds of distributions available for Linux, it's easy to find one that suits one's taste and needs. The amount of customizability for Linux is completely unmatched. In fact, it's even possible to create a completely customizable Linux distribution, tailored to one's specific needs.
- It's very secure and stable
  - Tech professionals have been using Linux for a long time because of the strong security and stability it has. Less malicious software targets the Linux operating system, and strict permissions make it difficult to execute viruses. Also, by default users are not the "root", essentially protecting them from inflicting much damage to the system. Also, because of the amazing community, bugs are found and fixed at a much faster rate.
- It has shell scripting
  - The addition of bash scripting allows users to navigate through the desktop and perform tasks all with the command line, no GUI is needed. With scripting, users can code programs that allow them to repeatedly do the same tasks, such as reading from a file or copying, moving, or deleting items. This proves to be extremely beneficial in work environments.
- It is easier for developers and programmers
  - Because of Linux's ease of use when developing programs, most software applications are easier to create and run Linux. Most programmers choose Linux because it's incredibly fast when efficiency really matters and milliseconds count.

## **Compare With Other OS**

- <u>Linux VS Windows</u>
  - Linux is completely free of charge, while a Windows license key costs upwards of \$100. This makes Linux the obvious choice regarding price for users with a budget. However, this does not mean that Linux skimps on quality. The attention to detail and quality can be seen in the exceptional graphical environments to choose from such as KDE Plasma.
  - Linux is less prone to attacks compared to Windows, because Windows is the operating system for the majority of computers, most attacks are targeted towards the Windows environment. Those attacks won't work with a Linux system
  - Because Windows is closed source, users don't know what exactly is in the source code, as it is not released. This makes it possible for Microsoft to put things in the source code that are unbeknownst to regular users, making it a security risk.

## - Linux VS MacOs

- MacOs is incredibly plain and simple compared to Linux. There is not much customization options available for MacOs, as it is more focused on simplicity instead of function. The pure simplicity of the design constricts users into adapting to their desktop style as opposed to the freedom users are given in Linux.
- MacOs is based on a completely different architecture, called NeXTSTEP, which is a Unix system. Unlike Linux, MacOs is purely created and developed by Apple, and outside organizations have no say on how it should be maintained. However, the Linux kernel is developed by the Linux Foundation, and distros are made by a handful of volunteers and companies. No one organization has complete control.

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