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## File Systems and Linux

Operating systems are an essential part of any computing device. They provide instructions for common tasks such as running the computer applications. Linux is the world's most popular operating system and has been around since the 1990s (The Linux Foundation). Linux software can be found in a wide variety of devices including phones, cars, and televisions. Linux is an open-source operating system which means they can easily be modified to fit almost any user need (*Linux vs Windows*). Comparatively, Windows is a commercial based operating system that receives updates and typically runs much slower when hardware is unable to support the latest features (*Linux vs Windows*). Linux is also completely free to install and use while most Windows products must be purchased (*Linux vs Windows*).

File systems are an important aspect for operating systems. File systems name and store computer files in an organized manner for later retrieval (Sullivan & O'Brien, 2018). Having files stored in an easily accessible manner is vital for both the computer and the user. Some file systems often separate parts of files to more efficiently store data (Sullivan & O'Brien, 2018). One example of this could be a file system storing the text and the formatting of a document separately. File systems can also provide or restrict direct access to reading or modifying files, preventing certain users and programs from maliciously or mistakenly causing damage to the

file contents or the programs that use them. File systems help ensure the entire computer runs without problems.

Linux in particular utilizes file systems within the desktop environment where user interaction is involved. The Linux Foundation lists GNOME, Cinnamon, Mate, Pantheon, Enlightenment, KDE, and Xfce as desktop environments that each use file systems to work more efficiently.

### Works Cited

Pedamkar, P. (n.d.). *Linux vs Windows*. EDUCBA. 9 Oct. 2022,

<https://www.educba.com/linux-vs-windows>.

Sullivan, E., & O'Brien, E. (Eds.). (2018, August). *File System*. SearchStorage. 9 Oct. 2022,

[www.techtarget.com/searchstorage/definition/file-system](http://www.techtarget.com/searchstorage/definition/file-system).

The Linux Foundation. "What is Linux?" *Linux.com*. 9 Oct. 2022, [www.linux.com/what-is-linux](http://www.linux.com/what-is-linux).