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Assignment for Module 1.6
6m-cloud-1.6-operating-systems-linux /assignment.md

1. Compare and contrast the Windows and Linux environments

No	Windows	Linux
1	Not open source	Open source
2	Paid	Free
3	File name case-insensitive	File name case-sensitive
4	Hybrid kernel is used	Monolithic kernel is used
5	4 types of user accounts: Administrator, Standard, Child, Guest	3 types of user accounts: Regular, Root, Service Account
6	Administrator user has all administrative privileges	Root user is the super user and has all administrative privileges

2. Compare and contrast at least two of the different Linux distributions

No	Ubuntu	Kali Linux
1	Initial release on 20 Oct 2004	Initial release on 13 Mar 2013
2	Devloped by Canonical	Developed by Offensive Security
3	Used for daily use or server	Used by security researches or ethical hackers
4	User friendly interface	Less user friendly interface
5	Good for beginners in Linux	Good for intermediates in Linux
6	Latest version uses Gnome-terminal by default	Latest version uses qterminal by default

3. What is the difference between Powershell and Bash?

No	Powershell	Bash
1	Command shell and associated scripting language for most Windows OS	Command shell and scripting language for most Linux OS
2	First introduced in 2006	First introduced in 1989
3	Treats input and output as object	Accepts input and output as text structure
4	User interface is a graphical command line interface CLI	User interface in a text based CLI
5	Can be executed on any Windows version from Win 97	Mainly prepared for Linux and Unix OS

4. How is that everything in Linux is considered a file?

The file system in Linux is usually divided into data blocks and inodes. Inodes are like the foundation of the Linux file systems. It is a data structure that stores metadata about every single file on your system except its name and data.

5. Explain some use cases of Linux and Windows Server in an organization's day-to-day use.

No	Industry	Use case
1	Web hosting	Linux servers are preferred due to the flexibility in cost, customization, and updates.
2	Finance	Windows servers are suitable due to advances security features and better integration with productivity tools like Excel and Access.
3	Healthcare	Linux servers are preferred due to better security features and customization.
4	Gaming	Windows servers are preferred due to better graphics and multimedia support.
5	E-commerce	Linux servers are more suitable due to cost, stability, and scalability.
6	Education	Linux servers are more suitable due to security features, stability, and reliability.

References

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