Notes 2

1. What is an Operating System?

the fundamental software that manages a computer's hardware, memory, and processes while providing a user interface and platform for applications to run.

2. What is a kernel?

the core component of an operating system (OS) that acts as the primary bridge between a computer's software applications and its hardware.

3. Which other parts aside from the kernel identify an OS?

shell/user interface, system utilities, and libraries.

4. What is linux and linux distribution?

A Linux distribution ("distro") is a complete operating system built around this kernel, bundling it with essential software, libraries, package managers, and desktop environments to create a functional system tailored for specific uses like servers, development, or desktops

6. List at least 4 linux characteristics:

open source, multitasking, modularity, and security

7. What is Debian?

Debian is a popular, stable, and versatile open-source Linux distribution known for its focus on free software, stability, and security.

9. List and define the different types of licensing agreements

Licensing agreements are legal contracts that govern the use, distribution, and modification of software, intellectual property, or other assets. list of types are property license, open source license, freeware and shareware license.

10. What is Free Software? Define the 4 freedoms.

Free Software refers to software that is released under a license that guarantees users the freedom to run, study, modify, and share the software.

The Freedom to Run the Software (Freedom 0): This freedom allows users to run the software for any purpose, without restrictions on how they use it.

The Freedom to Study the Software (Freedom 1): This freedom gives users the ability to study how the software works and to make changes to it. To exercise this freedom, users need access to the software's source code.

The Freedom to Modify the Software (Freedom 2): This freedom grants users the right to modify the software to suit their needs or to improve it. Once the software is modified, the user is free to use the modified version in the same way as the original.

The Freedom to Share the Software (Freedom 3): This freedom allows users to distribute copies of the software to others, either the original or their modified version. This helps the software spread and enables others to benefit from the improvements or fixes made by the user.

11. What is virtualization?

Virtualization is the process of creating a virtual version of something, such as an operating system, a server, a storage device, or a network resource.