

What is an Operating System?

An operating system provides all fundamental software features of a computer. It enables you to use the hardware and gives you the tools to make your computer actually usable.

What is a kernel?

A kernel is software that is responsible for taking care of lower level features on the computer which include managing its hardware, memory allocation, CPU timings, and program to program interactions.

Which other parts aside from the kernel identify an OS?

It's command-line shells, graphical user interfaces (GUI), utility and productivity programs, and it's libraries.

What is linux and linux distribution?

Linux is a Unix-like operating system consisting of a kernel, libraries, and utilities that make up entire operating systems. Distributions of Linux are any operating systems that run the Linux kernel such as Ubuntu, Arch, Debian, Red Hat, ect.

List at least 4 linux characteristics:

Linux is open source software, it's free of charge, it's highly scalable and customizable, and can be installed on almost any system as it supports almost every processor.

What is Debian?

Debian is an all-volunteer organization who's dedicated to developing free software and promoting the ideals of free software. It began in 1993 when Ian Murdock got a group of developers together to create a linux distribution. It is a grandfather distribution.

List and define the different types of licensing agreements

- Open Source : Software that can be distributed for free or for a fee, and it's source code comes with the software.
- Closed Source : Software that doesn't come with the source code. The user can't modify the code.
- Freeware : Software is free but source code is not available.
- Shareware : Software is free on a trial basis.
- Free software : Software is distributed with the source code. The software can be free of charge or obtained by a fee.

What is Free Software? Define the 4 freedoms.

Free software is software that is distributed with its source code. It can be free of charge or obtained by a fee

- Freedom 0 : Use the software for any purpose
- Freedom 1 : Examine the source code and modify it as you see fit
- Freedom 2 : Redistribute the software

- Freedom 3 : Redistribute your modified software

What is virtualization?

Virtualization is creating virtual versions of something. In this case, it'd be adding virtual machines onto a system, dividing the hardware to create multiple computers inside of one physical one. This allows for multiple OSs to run on one physical machine at once.