

Week Report 3

Summary of Presentations

Introduction to Linux

What is an operating system? An operating system is system software that manages computer hardware, software resources, and provides various services for computer programs. It serves as an intermediary between the computers hardware and the applications that run on it.

Aside from a kernel, what other parts make an operating system?

1. Hardware Abstraction
2. Process Management
3. Memory Management
4. Device Management
5. System Calls
6. Security
7. Interrupt Handling

What is a Linux distribution? A Linux distribution, often referred to as a "Linux distro," is a complete and self contained operating system built around the Linux kernel.

What is Ubuntu? Ubuntu is a Debian-based Linux distribution, known for its ease of use, stability, and focus on making Linux accessible.

Define the following terms: Open Source, Closed source, free software

1. Open source refers to software whose source code is made available to the public, allowing anyone to view, modify, and distribute the code.
2. Closed source software, is the opposite of open source. It means the source code of the software is not freely available for viewing, modification, or distribution.
3. Free software focuses on the users freedom to use, study, modify and share the software, rather than being limited by restrictions of ownership or control by the developer.

What are the 4 freedoms defined by the free software foundation Freedom to use, study, distribute and improve, otherwise it is not free software.

The basics of Virtualization

What is virtualization? Virtualization is a technology that creates virtual instances of computer hardware and software within a physical computing environment.

List 3 benefits of virtualization

1. Allows running multiples OSs on one machine without dual booting.
2. Allows applicacions to be tested before installing them on a host machine.
3. Reduce cost by decreasing the physical hardware that must be purchased for a network

What is a hypervisor? A hypervisor is a software or hardware technology that manages and abstracts physical hardware resources, allowing the creation and management of multiple virtual machines on a single physical server.

What is virtualbox? VirtualBox is a free and open source virtualization software developed. is used for tasks such as software testing, development, running legacy applications, and creating virtual environments.

Exploring Desktop Environments

What is a desktop environment? (Provide 3 examples) A desktop environment is a graphical user interface that provides a user friendly and visually appealing way to interact with an operating system.

1. GNOME
2. KDE Plasma
3. Xfce

List 4 common elements of desktop environments

1. Desktop Wallpaper
2. Icons
3. Taskbar or Panel
4. File Manager

What is Ubuntu's default desktop environments? Ubuntu primarily used the GNOME desktop environment as its default desktop environment.

What are the official flavors of Ubuntu?

1. Kubuntu
2. Xubuntu
3. Lubuntu
4. Ubuntu Budgie
5. Ubuntu MATE
6. Ubuntu Studio
7. Ubuntu Kylin

What is a Shell?

What is Bash? Bash is a popular command line user interface, specifically a Unix shell as well as a scripting language.

How do you access the Linux CLI? Terminal Emulator: Open a terminal emulator application on your desktop, such as GNOME Terminal or Konsole, to access the CLI.

What is a console terminal? A console terminal, often simply referred to as a "console," is a text based interface for interacting with a computer or operating system.

What is a terminal emulator? A terminal emulator is a computer program that replicates the functionality of a physical computer terminal.

Provide 3 examples of Linux commands pwd (Prints the working directory) mkdir (Create a Directory) cp (Copy Files and Directories)

Managing Software

Which command is used for updating ubuntu

1. sudo apt update
2. sudo apt upgrade

Which command is used for installing software. Provide an example.

sudo apt install firefox

Which command is used for removing software. Provide an example.

sudo apt remove firefox

Which command is used for searching for software. Provide an example.

apt search text editor

Definition of the following terms:

A software package is a collection of files and metadata that contains an application, library, or other components required to perform a specific task

A library, in the context of software development, refers to a collection of pre compiled functions, routines, or code that can be used by other software applications to perform common tasks or provide specific functionality.

A repository, often referred to as a software repository or package repository, is a centralized storage location for software packages and related data. It serves as a trusted source for software distribution and updates