

Week Report 3

Summary of presentations

Introduction to Linux

What is an operating system? An operating system provides all fundamental software features of a computer

Aside from a kernel, what other parts make an operating system? Applications, Graphical Desktop Environment, Daemon Shells, Hardware

What is a Linux distribution? a complete Linux system package

What is Ubuntu? Ubuntu is a Linux distribution, freely available with both community and professional support

Define the following terms: Open Source, Closed source, free software Open source: the software may be distributed for free. The source is distributed with the software Closed source: the software is not distributed with the source code. The user is restricted from modifying the code free software: the software is distributed with the source code. The software can be free of charge or obtained by a fee

What are the 4 freedoms defined by the free software foundation? 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

The basics of Virtualization

What is virtualization? Virtualization is defined as creating virtual versions of something

List 3 benefits of virtualization

- Allows running multiple OS's on one machine without dual booting
- Allows applications to be tested before installing them on a host machine
- Reduces costs by decreasing the physical hardware that must be purchased for a network

What is a hypervisor? Software or Hardware in charge of creating, managing, and running virtual machines

What is virtualbox Virtual box is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use

Exploring Desktop Environments

What is a desktop environment? (Provide 3 examples) A desktop environment is an implementation of the desktop metaphor made of a bunch of programs running on a top of a computer operating system, which shares a common GUI, sometimes described as a graphical shell

- GNOME
- KDE
- XFCE

List 4 common elements of desktop environments

- Desktop settings
- Display Manager
- File Manager
- Icons

What is Ubuntu's default desktop environments? The Gnome desktop environment

What are the official flavors of Ubuntu?

- Edubuntu
- Kubuntu
- Lubuntu
- Ubuntu Budgie
- Ubuntu Cinnamon
- Ubuntu Kylin
- Ubuntu MATE
- Ubuntu Studio
- Ubuntu Unity
- Xubuntu

What is a Shell?

What is Bash? Bash is a Unix shell and command language written by Brian Fox for the GNU Project as a free software replacement for the Bourne shell

How do you access the Linux CLI? There are two ways to access the CLI

- Terminal Emulator
- Linux Console

What is a console terminal? A console terminal is an electronic or electromechanical hardware device that can be used for entering data into, and transcribing data from, a computer or a computing system

What is a terminal emulator? A terminal emulator is a program that allows you to access the Linux CLI

Provide 3 examples of Linux commands

- Ctrl + A= go to start of the command line
- Ctrl + E= go to the end of the command line
- Ctrl + K= delete from cursor to the end of the command line

Managing Software**Which command is used for updating ubuntu**

`sudo apt update; sudo apt upgrade -y`

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

`sudo apt install firefox flameshot caffeine -y`

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

```
sudo apt remove firefox flameshot caffeine -y
```

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

```
apt search "web browser"
```

Definition of the following terms:

Package: a collection of computer programs and related data that perform specific functions or tasks

Library: a collection of files, programs, routines, scripts, or functions that can be referenced in the programming code

Repository: a centralized digital storage that developers use to make and manage changes to an application's source code