

Week Report 3

Summary of presentations

Introduction to Linux

What is an operating system? An operating system provide the basics tools to be able to use the computer's hardware. A operating system allows to have all the fundamentals software functionalities of a computer.

Aside from a kernel, what other parts make an operating system? Command-Lines shell, Graphical users interfaces, utility and productivity programs, libraries.

What is a Linux distribution? Linux is a Unix-like operating system popular in academic and business environment. In addition, some of its characteristics are that it is a open source software, available free charge, it can be installed on almost any system as it supports almost every processor architecture.

What is Ubuntu? Ubuntu is a Linux distribution, free and with community and profession support. It includes pieces of software such as, LibreOffice, Web browser Firefox, Email client and AppStore.

Define the following terms: Open Source, Closed source, free software Open source: It is a development method for software that harnesses the power of distributed peer review and transparency of process. It means that the software may be distributed for a fee or free. The source code is distributed with the software. Closed source: The software is not distributed with the source code. The user is not permitted to modify the code. Free software: The software is provided with the code . It can be free of charge or can have 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 for any purpose. 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. It is often used to let multiple OSs run on one physical machine at the same time.

List 3 benefits of virtualization 1- Allow application to be tested before installing them on a host machine. 2- Offers the ability to save the state of machine at given time and roll it back or forward. 3- Allows running multiple OSs on one machine without dual booting.

What is a hypervisor? Hypervisor/ Virtual Machine Manager (VMM), is a software or hardware in charge of creating, managing, and running virtual machines. There are two types of hypervisor: Type 1, which run directly on the hardware and type 2 which is an application that runs on top of an operating system.

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

Exploring Desktop Environment

What is a desktop environment? (Provide 3 examples) A desktop environment (DE) is an implementation of the desktop metaphor made for a bundle of programs running on top of a computer operating system, which shares a common GUI, sometimes described as a graphical shell. Some examples of desktop environment are KDE, GNOME and Cinnamon.

List 4 common elements of desktop environments 1- Panels 2- Menus 3- Launcher 4- File Manager

What is Ubuntu's default desktop environments? GNOME 3 is the defaulted Ubuntu DE.

What are the official flavors of Ubuntu? Canonical offers an official flavor of Ubuntu with the xfce DE called Xubuntu.

What is a Shell?

What is Bash? Bash shell is a program that provides interactive access to the Linux system. It runs as a regular program and is normally started whenever a user logs in into a terminal.

How do you access the Linux CLI? A command-line interface is a means of interacting with a computer program where the user issues commands to the program in the form of successive lines of text. To access the CLI can be via terminal emulator or Linux console.

What is a console terminal? It text the Linux system out of graphical desktop mode and place it in text mode. A virtual console is a terminal session that runs in Linux system memory.

What is a terminal emulator? A terminal emulator is a program that allows you to access the command line interface. Some of the terminal emulator are Konsole, Terminology and GNOME terminal.

Provide 3 examples of Linux commands 1- Ctrl + R, search the history backwards. 2- Ctrl + L, clear the screen. 3- Ctrl + Z, suspend/stop the command.

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 spotify
```

Which command is used for removing software. Provide an example

```
sudo apt remove spotify
```

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

```
apt search "google chrome"
```

Definition of the following terms:

* **Package:** It archives that contain binaries of software, configuration files and information about dependencies. A box containing all the

necessary stuff to install the program you want.

- * **Library:** Reusable code that can be used by more than one functions oor program.

- * **Repository:** A large collection of software available for download.