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## Week Report 3

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### Summary of Presentations

#### Introduction to Linux

**What is an operating system?** An operating system provides all fundamental software features of a computer and lets you control the computers hardware.

**Aside from a kernel, what other parts make an operating system?** Other parts of an operating system include the command line shells, graphical user interfaces, libraries, and utility and productivity programs.

**What is a Linux distribution?** The complete system package for Linux that contains a Linux kernel, core unix tools, supplemental software, startup scripts, and an installer.

**What is Ubuntu?** A Linux distribution, freely available with both community and professional support.

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

- Open Source: A software that is free or has to be purchased but the source code comes with the software.
- Closed Source: The source code is not given with the software and users are restricted from editing the software.
- Free Software: The software is free but the source code might not come with the software.

#### 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?** A way of creating a virtual version of something. Often used to run multiple operating systems on one physical machine at the same time.

#### List 3 benefits of virtualization

- Allows running multiple operating systems on one machine without dual booting.
- Allows applications to be tested before installing them on the 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** 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 bundle programs running on top of a computer operating system, which shares a common graphical user interface. Examples: GNOME, KDE, and XFCE.

### List 4 common elements of desktop environments

- Desktop Settings
- Display Manager
- File manager
- Icons

**What is Ubuntu's default desktop environments?** GNOME 3

### What are the official flavors of Ubuntu?

- GNOME
- KDE
- XFCE
- MATE
- Cinnamon
- LXQT
- Deepin
- Pantheon

## What is a Shell

**What is Bash?** The GNU bash shell is a program that provides interactive access to the Linux system.

**How do you access the Linux CLI?** You access the Linux CLI by taking the Linux system out of the graphical desktop mode and placing it in text mode. Keyboard Shortcut: Ctrl-Alt-T

**What is a console terminal?** A direct interface to the Linux system that is text-based.

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

### Provide 3 examples of Linux commands

- apt search "name"
- sudo apt install
- clear

## Managing Software

**Which command is used for updating ubuntu** sudo apt update; sudo apt upgrade

**Which command is used for installing software. Provide an example.** sudo apt install lollypop

**Which command is used for removing software. Provide an example.** sudo apt remove dragonplayer

**Which command is used for searching for software. Provide an example.** apt search "music player"

**Definition of the following terms:**

- **Package:** Archives that contain binaries of software, configuration files, and information about dependencies.
- **Library:** Reusable code that can be used by more than one function or program.
- **Repository:** A large collection of software available for download.