You told me to remind you about my current homelessness situation for my reason for handing this in late i apologize again professor

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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. An os enables you to use the computer's hardware providing you the basic tools that make the computer useful. all of those features relay on the OS's kernel. Other os features are owed to additional programs that run atop the kernel.
- **Aside from a kernel, what other parts make an operating system?** Aside from the Kernel the other parts of the operating system are the:
    - Command Line Shells
    - Graphical User Interfaces
    - Utility and Productivity Programs
    - Libraries
- **What is a Linux distribution?** Linux Distribution is the complete linux system package it is made up of the following elements:
    - Linux kernel
    - Core Unix Tools
    - Supplemental Software
    - Startup Scripts
    - An Installer
- **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 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 restricted with 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. it is often used to let multiple OSs run on one physical machine at the same time.
- **List 3 benefits of virtualization** 3 benefits of virtualization include allowing multiple OSs to run on one machine without dual booting. It also allows applications to be tested before installing them on a host machine. It also reduces cost by decreasing the physical hardware that must be purchased for a network.
- **What is a hypervisor?** A hypervisor is a software or hardware in charge of creating, managing, and running virtual machines. There are 2 types of hypervisors:
    - type 1 (bare-metal hypervisor) this type of hypervisor runs directly on the hardware, it is basically the operating system for the physical machine.
    - type 2 is an application that runs on top of an operating system. this is the most commonly used in client side.
- **What is virtualbox** Virtual box is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use. Not only is is extremely feature rich, high performance product for enterprise customers, it is the only professional solution that is freely available as open source software.

Exploring Desktop Enviroments

- **What is a desktop environment? (Provide 3 examples)** A desktop environment is an implication of the desktop metaphor made up of a bundle of programs running on top of a computer operating system which share a common GUI, sometimes described as a graphical shell. Examples include:

    - Desktop Settings- Desktop settings consist of programs that allow you to make configuration changes to the desktop environment.
    - Display Manager-The display manager allows you to choose between the desktop environment, and users
    - File Manager- This program allows you to perform file maintenance activities graphically.

- **List 4 common elements of desktop environments**

    - Icons
    - Favorites Bar
    - Launcher
    - Window Manager

- **What is Ubuntu's default desktop environments?**

- The default desktop environment for ubuntu is GNOME 3.

- **What are the official flavors of Ubuntu?**

- Xubuntu

- Ubuntu Mate
- Ubuntu Cinnamon

What is a Shell

Shells make large scale IT possible.

- **What is Bash?** The GNU 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?**
    - Terminal Emulator
    - linux Console
- **What is a console terminal?** A console terminal is when you take the linux system out of graphical desktop mode and place it in text mode, it is a direct interface to the linux 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 + L- clears the screen.
    - Ctrl + F- move forward one character.
    - Alt + .- use the last word of the previous 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.** The command used to install software is the install option. For example if I wanted to install several commands i would type: 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.** To search for software you would use the "search" command, an example of this would be apt search "web browser" this command lets me search for all programs that matches the text in quotes.
- **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