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? Command-Line Shells, Graphical User Interfaces, Utility and Productivity Programs, and Libraries.

What is a Linux distribution? A complete Linux system package is called a Linux Distribution.

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 from modifying the code.
- Freeware: the software is free on a trail basis.

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 OSs on one machine without dual booting.
- Reduces costs by decreasing the physical hardware that must be purchased for a network.
- Offers the ability to save the state of a machine at a given time and roll it back or forward.

What is a hypervisor? Hypervisor/Virtual Machine Manager (VMM): Software or Hardware in charge of creating, managing, and running virtual machines.

What is virtualbox It is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use. Not only is VirtualBox an extremely feature rich, high performance, it is also the only

professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 3.

Exploring Desktop Environments

What is a desktop environment? (Provide 3 examples) They are graphical desktops like GNOME, KDE, Openbox. **List 4 common elements of desktop environments**

- Desktop Settings
- Display Manager
- File Manager
- Icons

What is Ubuntu's default desktop environments? The default desktop in Ubuntu is GNOME 3.

What are the official flavors of Ubuntu? KDE, XFCE, Mate, and Cinnamon.

What is a Shell?

What is Bash? Shells make large-scale IT possible. They're a necessary component to modern computing. But it might not have turned out that way without a lot of hard work from a developer at the free Software Foundation named Brain Fox. Now, the Bash shell is shipped with almost every computer in the world.

How do you access the Linux CLI? There are two ways to access the CLI: Terminal Emulator and Linux Console.

What is a console terminal? Is one way to get to a CSL is the take the Linux system out of graphical desktop mode and place it in text mode.

What is a terminal emulator? A program that allows you to access the Linux CIL. Most of the time you will be using a terminal emulator if uou have a GUI installed.

Provide 3 examples of Linux commands

- Ctrl + A - go to the 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 apt update

Which command is used for installing software. Provide an example. apt install cube2

Which command is used for removing software. Provide an example. apt remove cube2

Which command is used for searching for software. Provide an example. apt search game

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.