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Name: Ziyon Stevenson Semester: Spring 2023 Course: CIS106

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## Week Report 3

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### Summary of presentation

#### 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.

##### **Aside from a kernel, what other parts make an operating system?**

The other parts that make an operating system is the Command Line Shell, Graphical User Interfaces, Utility and Productivity Programs, and the Libraries.

##### **What is a Linux distribution?**

A Linux distribution is a complete Linux System that contains a Linux Kernel, Core Unix Tools, Supplemental Software, Startup Scripts, and 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 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 OSs 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 protected for a network.

### What is a hypervisor?

Hypervisor- Software or Hardware in charge of creating, managing, and running virtual machines.

### What is virtualbox

Virtualbox 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 product for enterprise customers, 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)

A desktop environment is an implementation of the desktop metaphor made of a bundle of programs running on top of a computer operating system, which shares a common GUI, sometimes described as a graphical shell.

### List 4 common elements of desktop environments

- Display Settings
- Desktop Settings
- Display Manager
- File Manager

### What is Ubuntu's default desktop environments?

Ubuntu's default desktop environment is GNOME 3.

### What are the official flavors of Ubuntu?

- Xubuntu
- Ubuntu Mate

### What is a Shell?

### What is Bash?

Bash is a program that provides interactive access to the Linux system.

### How do you access the Linux CLI?

- Terminal Emulator
- Linux Console

### What is a console terminal?

A console terminal is a terminal system that runs in Linux system memory.

### **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**

- date
- cal
- df

## **Managing Software**

### **Which command is used for updating ubuntu**

`sudo apt update`

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

`sudo apt install` is the command used to install software. `sudo apt install geary`.

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

`sudo apt remove` is the command used to remove software. `sudo apt remove geary`.

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

`sudo apt search` is the command used to search for software. `sudo apt search "web browser"`

### **Definition of the following terms:**

Package- archives that contain binaries of software, configuration files, and information about dependence.

Library- reusable code that can be used by more than one function or program.

Repository- a large collection of software available for download.