

# Week Report 3

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## Introduction to Linux

**What is an operating system?** An Operating System provides all the fundamental software features of a computer. An OS enables hardware to be useful via the software tools in the system.

**Aside from a kernel, what other parts make an operating system?** Command line shells, Graphical User Interfaces, Utility and Productivity programs and libraries make up parts of an Operating System.

**What is a Linux distribution?** Is an operating system that runs Linux kernel.

**What is Ubuntu?** Ubuntu is a linux distribution that is freely available with both community and professional support.

**Define the following terms: Open Source, Closed source, free software** Open source is a source code that may be distributed for a fee or free. A closed source is a software that is not distributed with a source code and the user is restricted from modifying the source code.

**What are the 4 freedoms defined by the free software foundation?** Freedom 0, which uses the software for any purpose. Freedom 1 which examines the source code and modifies as one sees fit. Freedom 2 redistributes the software. Freedom 3 redistributes modded software.

## The basics of Virtualization

**What is virtualization?** Virtualization is defined as creating virtual versions of something.

**List 3 benefits of virtualization** It can be used to run legacy applications in their sandbox even past their end of life. Allows multiple OS on one machine. Reduces cost by decreasing the hardware that must be purchased for a network.

**What is a hypervisor?** A hypervisor is a software or hardware that is in charge of creating, managing and running virtual machines.

**What is virtualbox** Virtualbox is a power x86 and AMD64/Intel 64 virtualization product for enterprise and home use.

## Exploring Desktop Environments

**What is a desktop environment? (Provide 3 examples)** A desktop environment provides a predetermined look and feel to a GUI. GNOME, Mate and Cinnamon are some examples.

**List 4 common elements of desktop environments** File manager, Icons, Display window and favorites bar.

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

**What are the official flavors of Ubuntu?** Official Ubuntu flavors are Ubuntu GNOME, Kubuntu, Lubuntu, Ubuntu Budgie, Ubuntu Kylin, Ubuntu MATE, Ubuntu Studio, Xubuntu, Edubuntu, and Mythbuntu.

## What is a shell?

**What is Bash?** Bash is a shell that was designed by Brian Fox to be free software.

**How do you access the Linux CLI?** It can be accessed by the Terminal emulator and linux console.

**What is a console terminal?** A console terminal is a command line interface with the means of a user to interact with and issue commands to a computer.

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

**Provide 3 examples of Linux commands** -!! - Run Last Command -Ctrl + L Clears the screen -Ctrl + C terminates the command

## Managing Software

**Which command is used for updating ubuntu** sudo apt-get update

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

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

**Which command is used for searching for software. Provide an example.** apt search "key word"

**Definition of the following terms:**

Package - A package in Linux is a compressed software archive file containing all the files included with a software application that provides any functionality  
Library - libraries are collections of data and functions written to be reused by other programmers or programs.  
Repository - repository is a storage location that contains essential and popular software for different Linux distributions