

# Week Report 3

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## Summary of presentation

### Introduction to Linux

#### What is an operating system?

An operating system provides all the fundamental software features of a computer to make it friendly for users. Also, it enables all the hardware providing full usability for users.

**Aside from a kernel, what other parts make an operating system?** Command-Line Shells, Graphic User Interfaces, Utility and Productivity Programs, and Libraries.

#### What is a Linux distribution?

A Linux distribution is any operating system that runs the Linux Kernel and with the Linux Operating System package.

#### What is Ubuntu?

Is a Linux distribution Operating System based on Debian which is free of cost. Is complete OS with multiple features and tools usable by people in their local languages and despite any disabilities.

#### Define the following terms:

- \* 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 free.

#### 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. Is often used to let multiple OSs run on one physical machine at the same time.

### List 3 benefits of virtualization

1. Allows running multiple OSs on one machine without dual booting.
2. Reduces cost by decreasing the physical hardware that must be purchased for a network.
3. It allows programs coded for one type of hardware or operating system to work on another that it's not designed to work on.

### What is a hypervisor?

A Hypervisor or Virtual Machine Manager (VMM) is a software or hardware in charge of creating, managing, and running virtual machines.

### What is virtualbox

A 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 customer, 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 DE (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** 1. Icons 2. Desktop Widgets 3. Desktop settings 4. File Manager

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

The default desktop in Ubuntu is GNOME 3.

#### What are the official flavors of Ubuntu?

Xubuntu, Unbuntu Mate, Deepin, Kubuntu, Lubuntu, Ubuntu Budgie, Ubuntu Kylin, Ubuntu Studio, and Ubuntu Unity.

### What is a Shell?

#### What is Bash?

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?

You can access to the Linux CLI in two ways by Terminal Emulator or Linux Console.

**What is a console terminal?**

Is a way to get to a CLI out of a graphical mode, but in a text mode.

**What is a terminal emulator?**

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

**Provide 3 examples of Linux commands**

1. `sudo`
2. `cd`
3. `man`

**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.**

```
sudo apt install dragonplayer
```

**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 "video 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.