# Introduction to Linux

- What is an operating system: **An operating system is a software that provides all fundamental software features of a computer. It enables the user 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? **Managing system hardware,CPU time, Memory allocation, program to program interaction**
- What is a Linux distribution? **A Linux distribution is a package of all the elements to make up linux.**
- What is Ubuntu? **Ubuntu is a Linux distribution based on Debian and composed mostly of free and open-source software.** Define the following terms: Open Source, Closed source, free software **Open source is free and public source code for anyone to edit configurations, Closed source is a exclusive source code that cannot be edited by the public. Free software is software that allows users to do whatever they want with it.** What are the 4 freedoms defined by the free software foundation? **run, study, redistribute, distribute**

## The basics of Virtualization

- What is virtualization? **The act of creating a virtual version of something.It lets multiple OSs run in one physical machine at the same time as well as allow administrators to divide the hardware and create multiple computers inside a single physical computer**
- List 3 benefits of virtualization **Some benefits are cost effectiveness, allows for easier testing and disaster recovery**
- What is a hypervisor? **a program used to run and manage one or more virtual machines on a computer.**
- What is virtualbox? **is a powerful x86 and AMD64/Intel64 virtualization developed by Oracle Corporation**

## Exploring Desktop Environments

What is a desktop environment? (Provide 3 examples) **Is an implementation of the desktop metaphor made of a bundle of programs running on top of a computer operating system that share a common graphical user interface. Some examples are MATE,Debian and Cinnamon**

- List 4 common elements of desktop environments **icons, toolbars,Wallpapers and widgets**
- What is Ubuntu's default desktop environments? **GNOME**
- What are the official flavors of Ubuntu? **Kubuntu, dubuntu, Ubuntu studio, Lubuntu,Ubuntu kylin, Ubuntu MATE, Ubuntu Budgie, Ubuntu Unity, Ubuntu Cinnamon, Xubuntu**

## What is a Shell?

- What is Bash? **Bash is a Unix shell and command language written by Brian Fox for the GNU Project as a free software replacement for the Bourne shell.**
- How do you access the Linux CLI? **In the launcher or Ctrl-Alt-T.**
- What is a console terminal? **A hardware device used for entering data into, and transcribing data from interface that can communicate with any computer system, using different protocols and formats.**

- What is a terminal emulator? **Is a computer program that allows you to access the Linux CLI.***
- Provide 3 examples of Linux commands **cd, mkdir, touch**

## Managing Software

- Which command is used for updating ubuntu **sudo apt-get update**
- Which command is used for installing software. Provide an example. **The apt-get command is used for installing software, apt update -y**
- Which command is used for removing software. Provide an example. **sudo apt-get -purge Visual Studio Code**
- Which command is used for searching for software. Provide an example. **apt-cache search, apt-cache pkgnames**
- Definition of the following terms: **Package- archives that contain binaries of software, configuration files and information about dependencies Library- resusable code that can be used by more than one function or program. Repository- A large collection of software available for download**