

OPERATING SYSTEM

(4ITRC2)

LAB ASSIGNMENT 1

Aim: To install and study Ubuntu OS.

To Perform: Install VMware or Virtual Box and Ubuntu over Window OS.

To Submit:

1. Introduction:

- **Linux:** The Linux Operating System is a type of operating system that is similar to Unix, and it is built upon the Linux Kernel. The Linux Kernel is like the brain of the operating system because it manages how the computer interacts with its hardware and resources. It makes sure everything works smoothly and efficiently. But the Linux Kernel alone is not enough to make a complete operating system.

To create a full and functional system, the Linux Kernel is combined with a collection of software packages and utilities, which are together called Linux distributions.

These distributions make the Linux Operating System ready for users to run their applications and perform tasks on their computers securely and effectively. Linux distributions come in different flavors, each tailored to suit the specific needs and preferences of users.

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2. Features of Ubuntu:

Ubuntu is a popular Linux distribution known for its user -friendliness and versatility. Here is a breakdown of its key features:

- **Open source:** Ubuntu is free to download ,use ,and distribute. This fosters a collaborative environment and allows for community-driven development.
- **User-Friendly:** It's designed to be accessible to beginners ,with a graphical user interface (GUI) that's intuitive and easy to navigate.
- **Security:** Linux based systems are generally considered secure ,and Ubuntu reinforces this with regular security updates and built-in firewalls.
- **Software Availability:** Ubuntu provides access to a vast software repository,including popular applications like Firefox , LibreOffice,and many others.
- **Customization:** Being open-source,Ubuntu allows for a high degree of customization, enabling users to tailor teir systems to their specific needs.
- **Hardware Compatibility:** Ubuntu generally offers broad hardware compatibility,supporting a wide range of devices.
- **Stability and Reliability:** Ubuntu is known for its stability,making it a reliable operating system for both personal and professional use.
- **Strong Community Support:** A large and active community provides extensive support through forums,documentation, and online resources.

3. Difference between Ubuntu and Window OS.

Window	Ubuntu
Windows operating system is developed by Microsoft.	Ubuntu operating system is developed by Canonical Ltd.
Windows is developed in November 1985 and Windows 10 released on July 2015.	Ubuntu is developed in October 2004.
Windows operating system belongs to Windows NT family.	Ubuntu operating system belongs to Linux family.
It is a closed source software.	It is an open source software.
Users need to have a valid and authenticated license to use it.	Users need to have a valid and authenticated license to use it.
Users can go through Ubuntu's source code to learn and modify it.	Users can't go through window's source code to learn and modify it.
Kernel type of Windows is Hybrid.	Kernel type of Ubuntu is Monolithic.
Windows uses more resources than Ubuntu.	Ubuntu uses less resources than Windows.
For gaming purpose windows is better than Ubuntu.	For gaming purpose Ubuntu is not so good like Windows.
Default user interface is Windows Shell.	Default user interface is Ubuntu unity, GNOME.
Windows has less customization options than Ubuntu.	Ubuntu has more customization options than Windows.
Cost of this software is paid.	Cost of this software is free.
It is less than Ubuntu.	It is more secure than Windows.
It is less privacy-focused than Ubuntu.	It is more privacy-focused than Windows 10.
Its user community is ordinary user and game player.	Its user community professional developers.
Windows is very easy to learn and start with as compared to Ubuntu .	Ubuntu is not easy to learn and start with as compared to windows as it mainly works with commands.
Adobe and Photo shop are supported in Windows.	Adobe and Photo shop are not much supported in Ubuntu.

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