Ubuntu 6-bit - using VM-ware

Introduction to Virtualization

Virtualization is a technology that enables the creation of multiple virtual environments on a single physical computing system. It allows hardware resources such as CPU, memory, storage, and network to be shared efficiently among multiple operating systems or applications by abstracting the underlying physical hardware.

In virtualization, a software layer called a **hypervisor** is used to create and manage virtual machines (VMs). Each virtual machine operates as an independent system with its own operating system and applications, while sharing the same physical hardware. This improves resource utilization, reduces hardware costs, and simplifies system management.

Virtualization plays a crucial role in modern computing environments such as **cloud computing, data centers, and container-based platforms**. It provides benefits like scalability, isolation, fault tolerance, and efficient deployment of applications. Technologies like virtual machines and containers (e.g., Docker) are widely used to implement virtualization in real-world systems.

(virtualization)