Containerization – DOCKER

What is Virtualization?

Virtualization is nothing but the process in which we can access or use the remote physical computer resource to our machine by means of internet. It allows to run multiple resources on a single machine at a same time.

Types of Virtualization:-

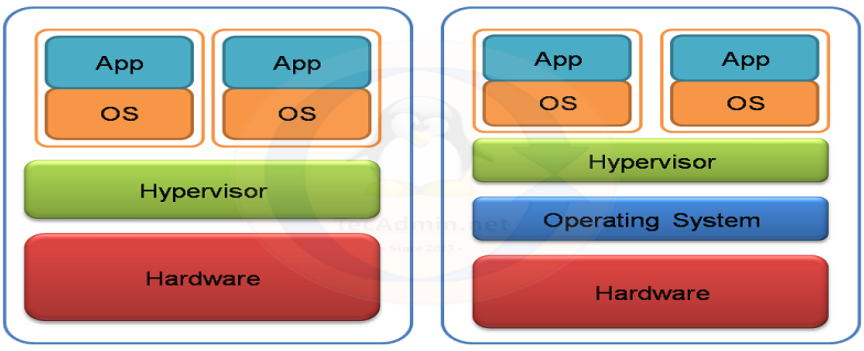
There are two types of virtualization : -

1. **Type 1** : -

    - This Virtualization also called as Bare-Metal Virtualization.
    - In this Vitualization Hypervisor directly Runs on Physical hardware.
    - Virtual Machines are directly created and managed directly on Hyperisor without any OS.
    - **EXAMPLE :-** ESXI , MS Hyper-V

2. **Type 2 :-**

    - Type 2 Virtualization also called as Hosted Virtualization.
    - Hypervisor runs on top of OS
    - Virtual Machine are created within the OS
    - **EXAMPLE : -** VirtualBox etc



Type 1 (Bare Metal) Virtualization

Type 2 (Hosted) Virtualization

What is Containerization : -

Containerization is a method of packaging software applications along with their dependencies, libraries, and configuration files, so they can run consistently across different computing environments. It involves encapsulating an application and its environment into a container image, which can be deployed and executed on any compatible platform without worrying about compatibility issues.

EXAMPLE : - Docker and Kubernetes.

What is Docker?

Docker is a popular platform for containerization, allowing developers to build, package, and deploy applications within containers. It provides tools and a runtime environment for creating and managing containers, which are lightweight, portable, and isolated environments for running applications.