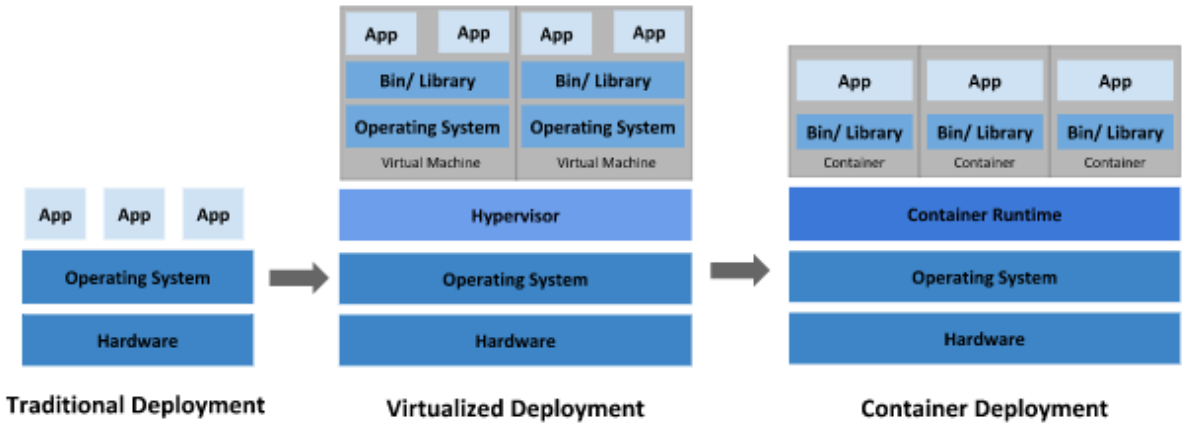
Virtual Machines (VMs) vs Containers

Then the container revolution began with improved performance in data center technologies and application development led to cloud computing.



Containers

A **container** is an isolated, lightweight silo for running an application on the host operating system, each container has its own library & applications.
It is easy to deploy, fast boot time & dynamic resource allocation.
Simply we can say its OS (Operating System) virtualization with a layer of container run-time (software container management)

Containers can run:

- On top bare metal servers
- On top hypervisors
- In cloud infrastructure

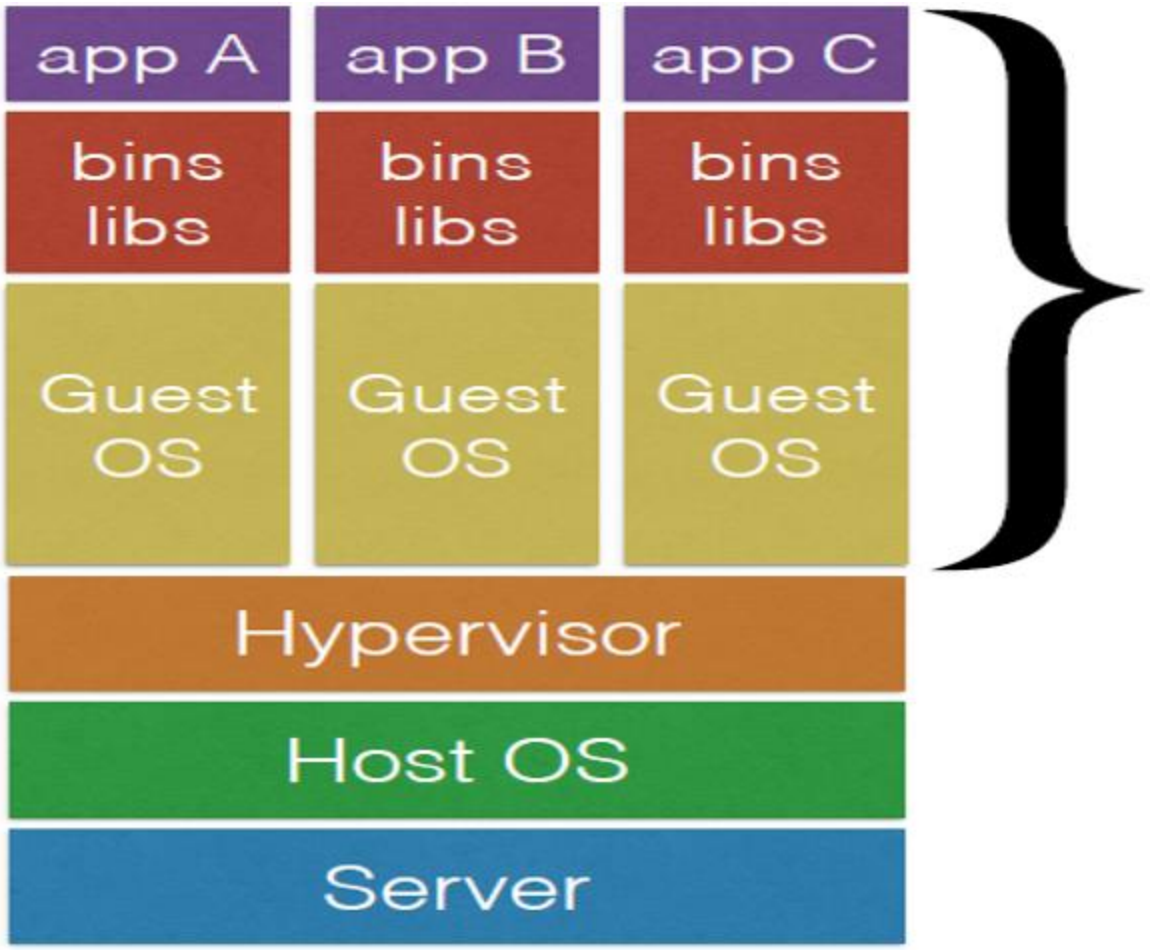
Benefits of containers

Containers are very useful in developing, deploying, and testing modern distributed apps and microservices that can operate in isolated execution environments on the same host machines.

Virtual Machines

VM is an emulation of a computer system, it makes many separate computers on hardware that is actually one computer.
OS & their applications share hardware resources.

In simple words, Virtually dividing one server/cluster into multiple servers working individually, all are being controlled by HyperVisor.



The virtual machine contains all necessary elements to run the apps, including:

- Computing
- Storage
- Memory
- Networking
- Hardware functionality available as a virtualized system