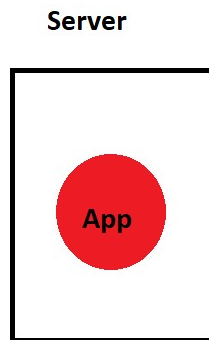


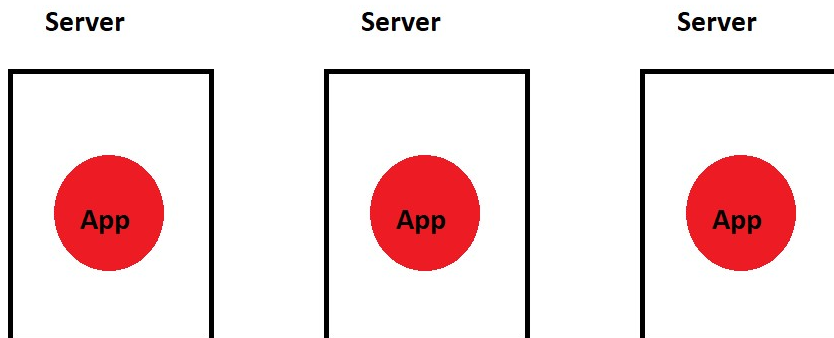
Docker Concepts

One app one server

Server requirement for one app



Server requirement for three app



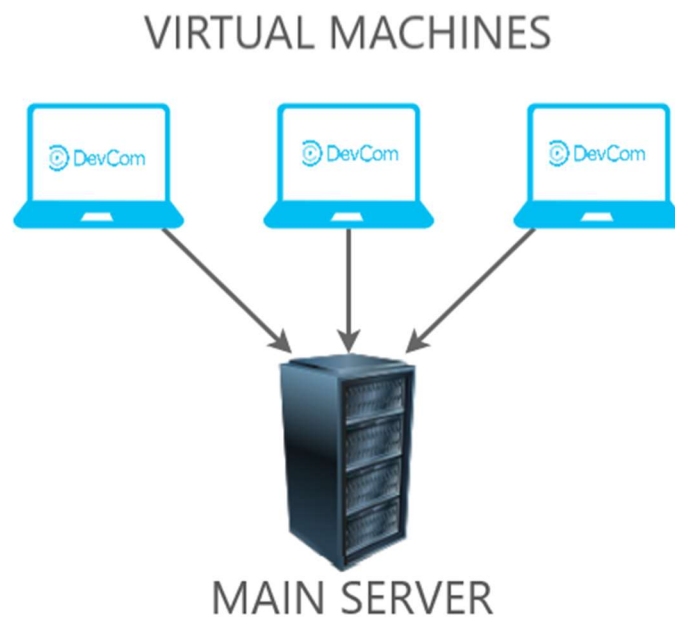
Who solved the problem?

VMware solved the above problem by introducing the concept of virtual machines



What are virtual machines?

A **Virtual Machine** (VM) is a compute resource that uses software instead of a physical computer to run programs and deploy apps. One or more virtual “guest” machines run on a physical “host” machine. Each virtual machine runs its own operating system and functions separately from the other VMs.



Vm1 HAVE NO IDEA WHTS GOING ON vm2

What is the problem now?

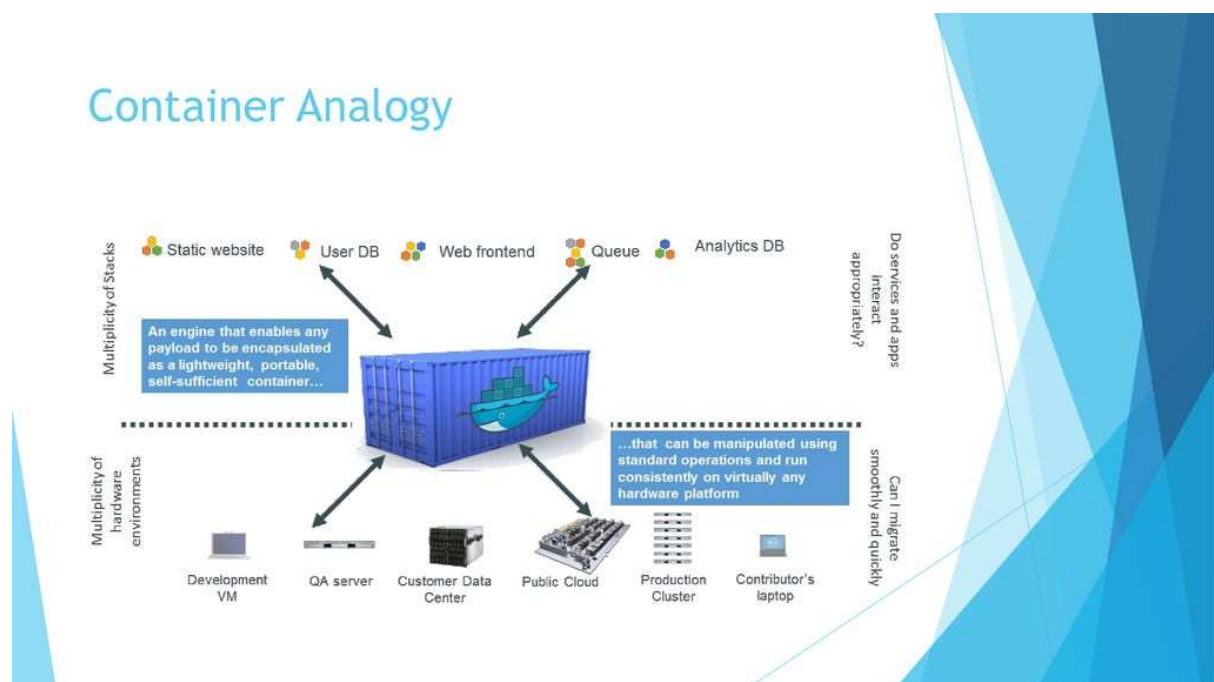
- The problem here is every machine needs dedicated ram and some storage to install the operating system.
- Licence of the operating systems
- Slow
- Dependency management.

Virtual machines are better than one app one server concept, but it's not perfect.

THIS PROBLEM IS BEING SOLVED BY? CONTAINER

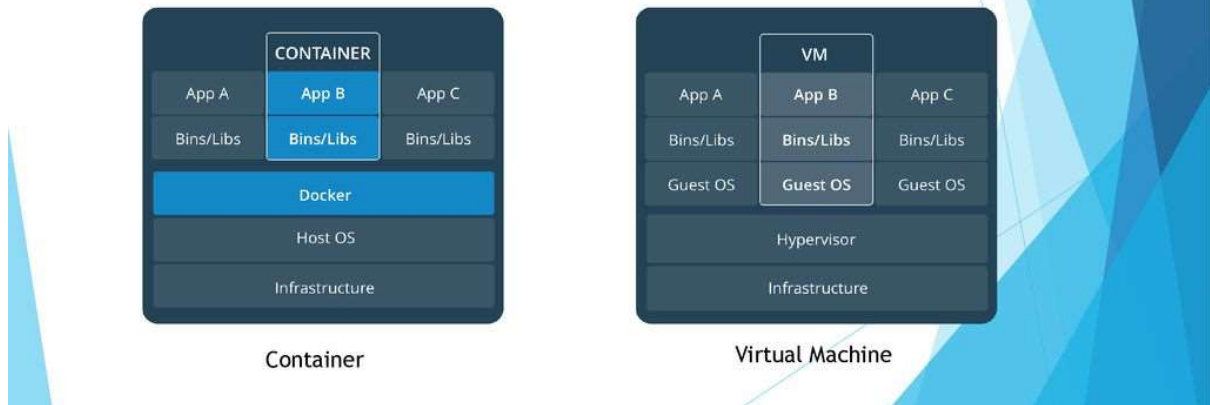
What is a container:

A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another.



Container Overview

Containers are to applications as virtual machines are to operating systems



What is Docker:

Docker is a container platform that allows you to build, test and deploy your applications quickly

Docker is a technology or platform that makes it easier to create, deploy, package, and ship programmes, as well as its components like libraries and other dependencies.

Images

A Docker image is containing everything needed to run an application as a container. This includes:

- code
- runtime
- libraries
- environment variables
- configuration files

Containers

A Docker container is a runtime instance of an image. From one image you can create multiple containers (all running the sample application) on multiple Docker platform.

Docker Installation Guide

<https://shaileshjha.com/step-by-step-how-to-install-docker-in-windows/>