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Debug your Azure Kubernetes with Azure Dev Spaces

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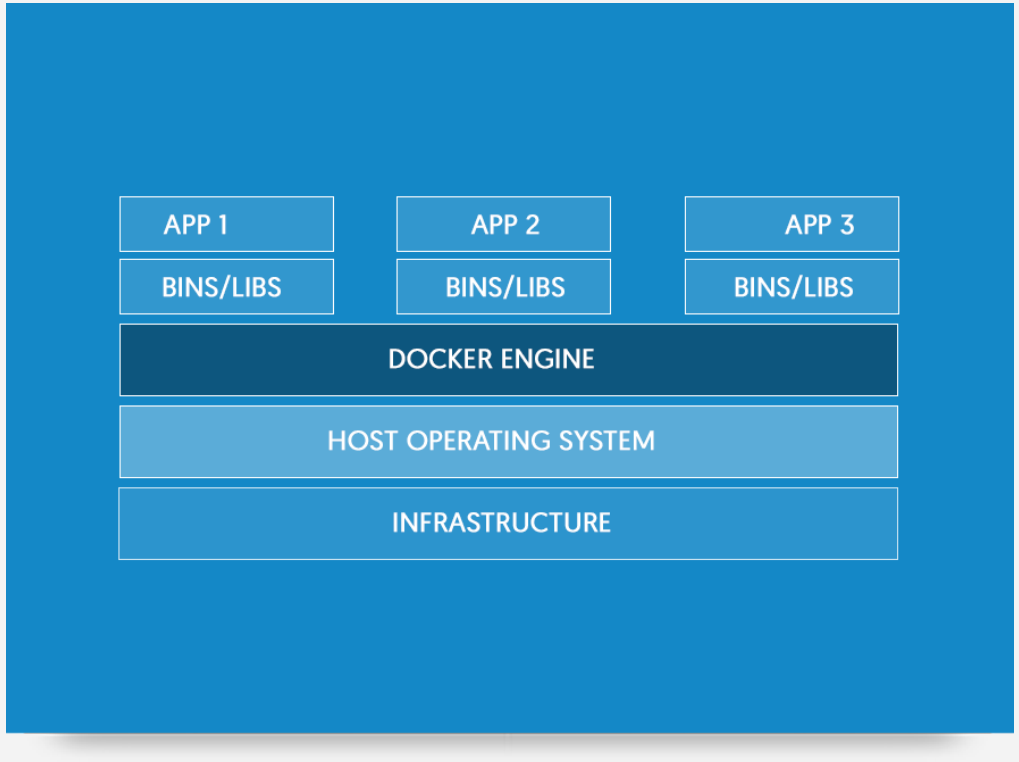
What is a Container?

Windows Containers provide operating system virtualization that allows multiple isolated applications to be run on a single system.



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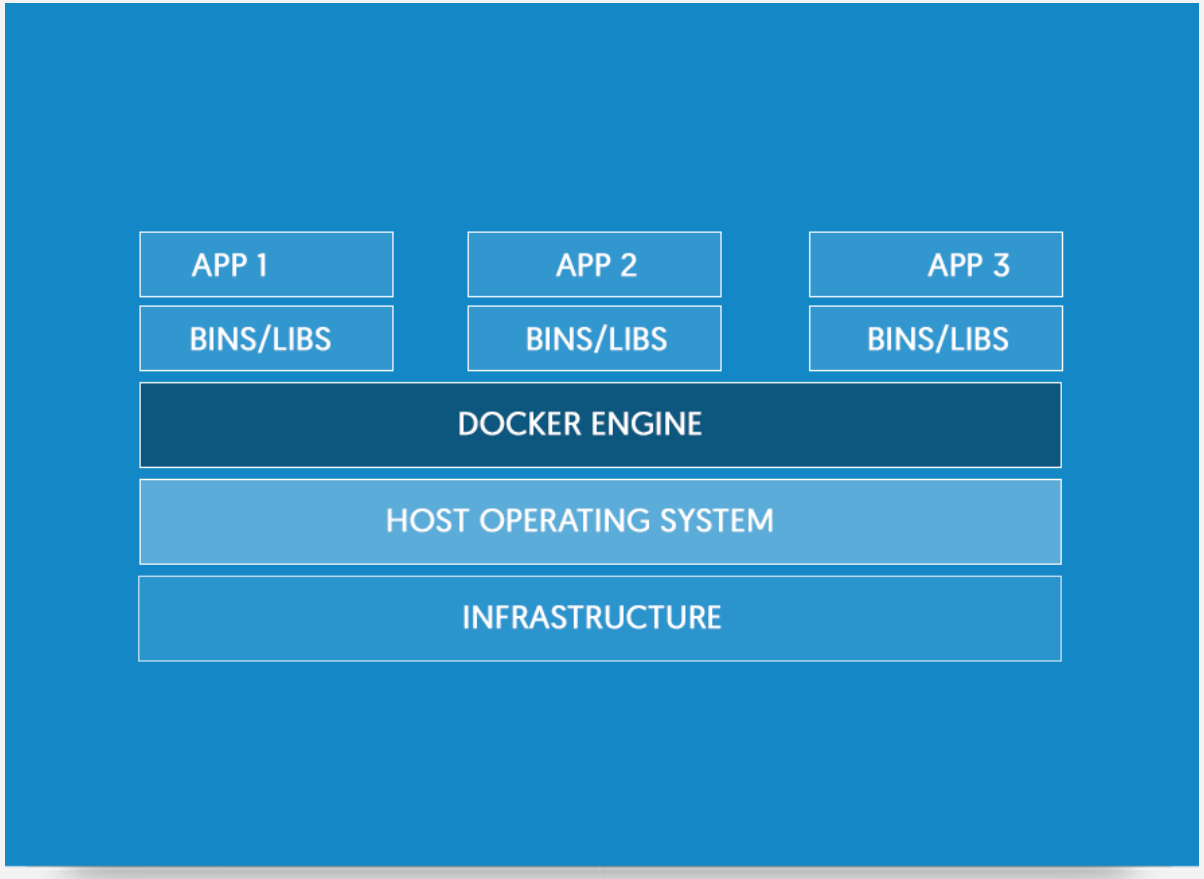
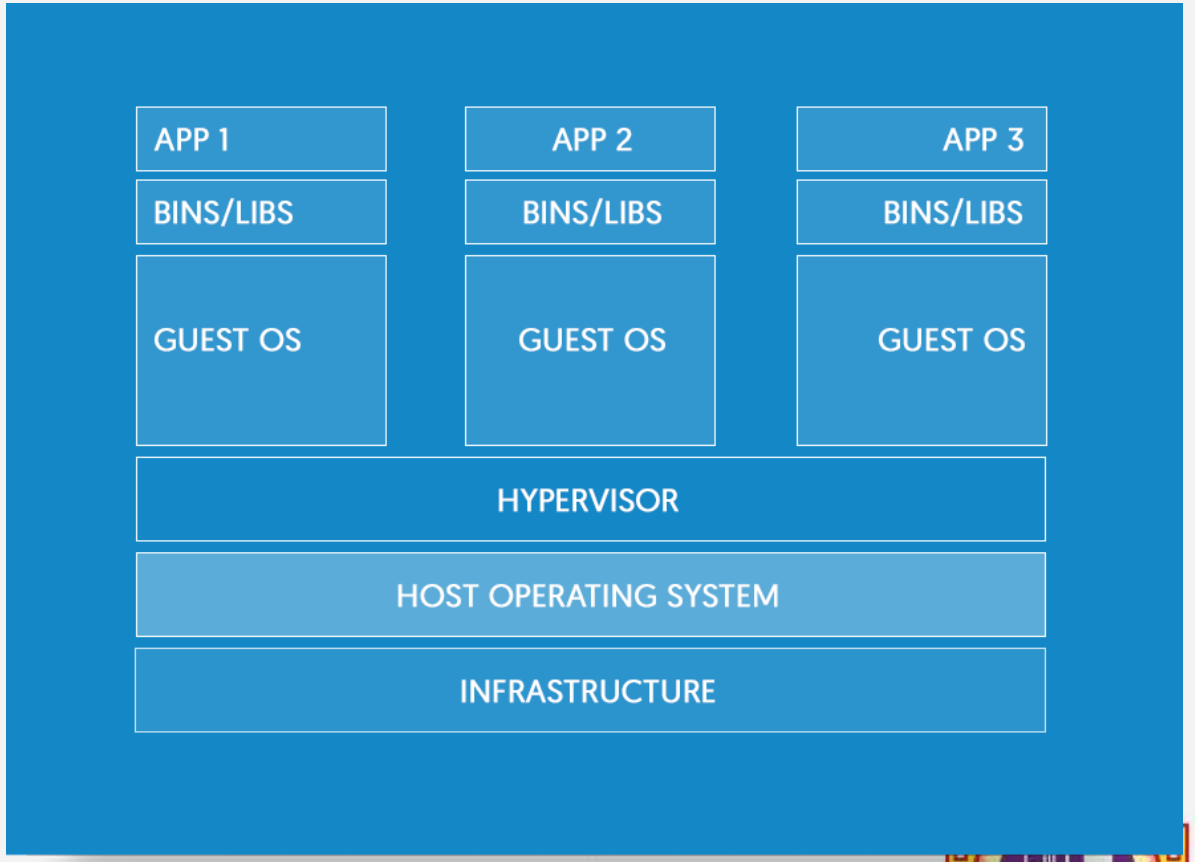
Difference between Containers and VMs





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Why Containers ?

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Why Containers?

- Transforming existing applications into cloud Is Hard!
- Building Hybrid Cloud applications Is Hard!
- Think about building solutions that should be deployed in Azure, AWS & GCP at the same time

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What is Docker ?

- Docker is an open platform for developing, shipping, and running applications

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DEMO !!!

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What is Kubernetes ?

- Kubernetes is an open-source system for automating deployment, scaling, and management of containerized applications.
- Orchestrator for Containers

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What is Kubectl ?

- Kubectl is a command line interface for running commands against Kubernetes clusters.

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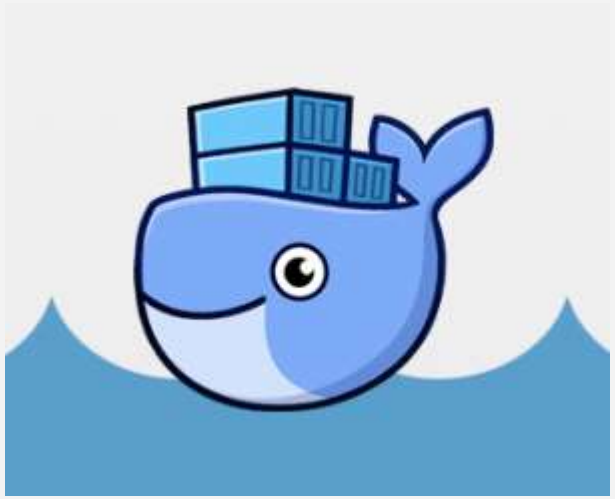
What is Pod?

- A Kubernetes pod is a group of containers that are deployed together on the same host.



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What is Kubernetes Service?

- A Kubernetes Service is an abstraction which defines a logical *set* of Pods and a policy by which to access them

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What is Kubernetes Replica Sets?

- Replica Set ensures how many replica of pod should be running. It can be considered as a replacement of **replication controller**.

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What is Azure Kubernetes Service ?

- Azure Kubernetes Service (AKS) manages your hosted Kubernetes environment, making it quick and easy to deploy and manage containerized applications without container orchestration expertise.
- It eliminates the burden of ongoing operations and maintenance.

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Why Azure Dev Spaces ?

- Minimize local dev machine setup for each team member and work directly in AKS, a managed Kubernetes cluster in Azure
- Rapidly iterate and debug code directly in Kubernetes using Visual Studio 2017 or Visual Studio Code.
- Generate Docker and Kubernetes configuration-as-code assets for you to use from development through to production.
- Share a managed Kubernetes cluster with your team and collaboratively work together. Develop your code in isolation, and do end-to-end testing with other components without replicating or mocking up dependencies.

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