Lab 2
Building a Kubernetes Application

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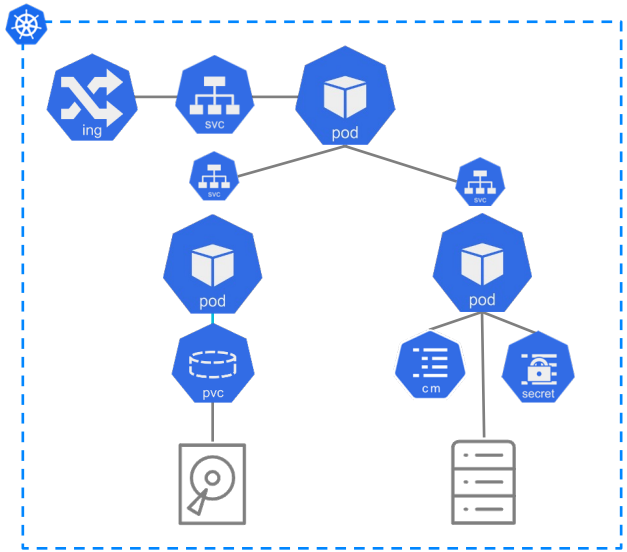

KASTEN by Veeam

Objectives

- Review K8s application terminology
- Answer a series of initial challenge questions in the lab to ensure the user has mastered the Kubernetes terminology
- Use real keyboard commands to build an actual Kubernetes application

Pre-work requirements

For all

- Blog for Lab 2
- Kubernetes introduction slides
- Intro to Kubernetes
- Lab Series Overview slides

For advanced users

- Kasten K10 documentation
- Free Kasten K10 download

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Lab 2 – Part 1
Key Terminology Review

Applications - basic K8s operational unit

Kubernetes applications are enterprise-ready containerized solutions with prebuilt deployment templates, featuring portability, simplified licensing, and consolidated billing.

Terminology

- The what, how, and why of container images
- How containers relate to applications
- Stateless applications
  - Short term apps that do not retain data regarding a transaction - (e.g.: print services, microservices)
- Stateful applications
  - Applications that typically use a database (e.g.: MySQL) and process a read/write and thus retain information regarding each transaction involved
- Options for running applications locally/remotely/other
- Tools to help you build an application
- What's involved in managing manifests

Lab 2 – Part 2

Hands on

Commands for building and scaling an application:

- Discovering Kubernetes storage
- Kubectl get storage class
- Explore a use case (Spring PetClinic) with a data service (MySQL)
- Installing the app
- Exploring the app
- Using it as a service to expose the app
- Running multiple instances of the app
- Scaling your app
- Performing a rolling update
- Adding data
- Exploring persistent volume/volume claim
- For Pros-
  - Introduce Kubestr, install another storage class

Lab 2 – Hands on Summary

Discover Kubernetes Storage

Creating a volume to share disk storage between containers

Continue

Run a Stateful Application Using MySQL

Spring PetClinic

Skip to

Introduction to Kubestr

Validate and evaluate your Kubernetes storage options.

Skip to

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Thank You