

#### Lab

### Rolling out updates



## Recap

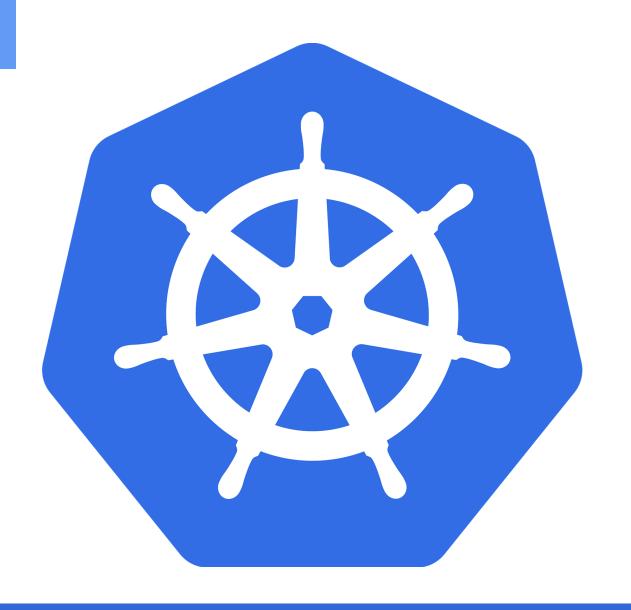
#### Kubernetes

#### Manage applications, not machines

Open source, Open API container orchestrator

Supports multiple cloud and bare-metal environments

Inspired and informed by Google's experiences and internal systems



### Container

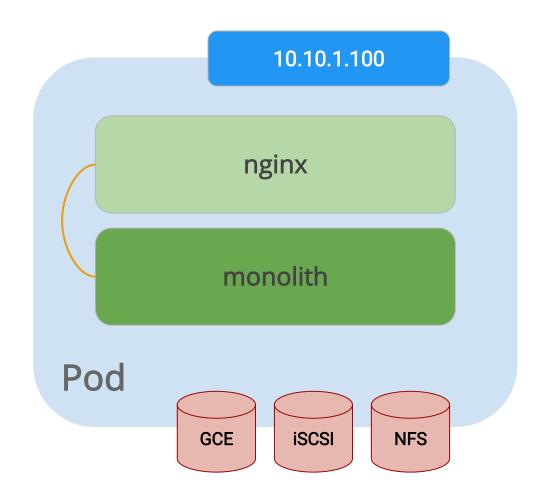
- Subatomic unit in Kubernetes
- Can use Dockerfile just like you're used to



### Pods

### **Logical Application**

- One or more containers and volumes
- Shared namespaces
- One IP per pod



## Monitoring and Health Checks

Hey, app v1... You alive?

Kubelet

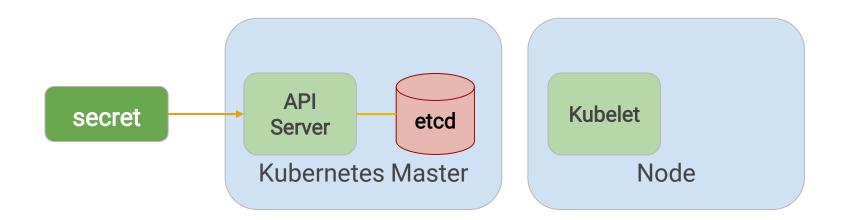
Pod

app v1

Node

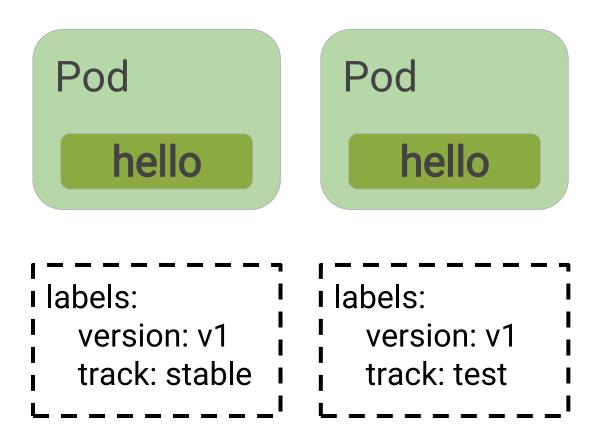
# **Secrets and Configmaps**

\$ kubectl create secret generic tls-certs –from-file=tls/



### Labels

Arbitrary meta-data attached to Kubernetes object

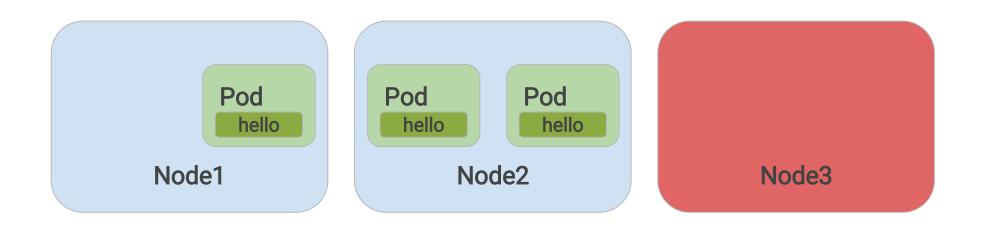


### **Deployments**

Drive current state towards desired state

app: hello

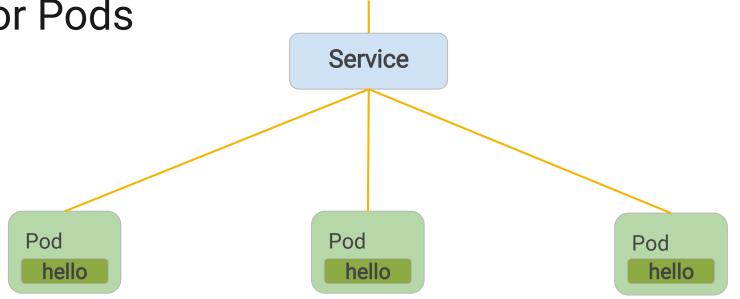
replicas: 3

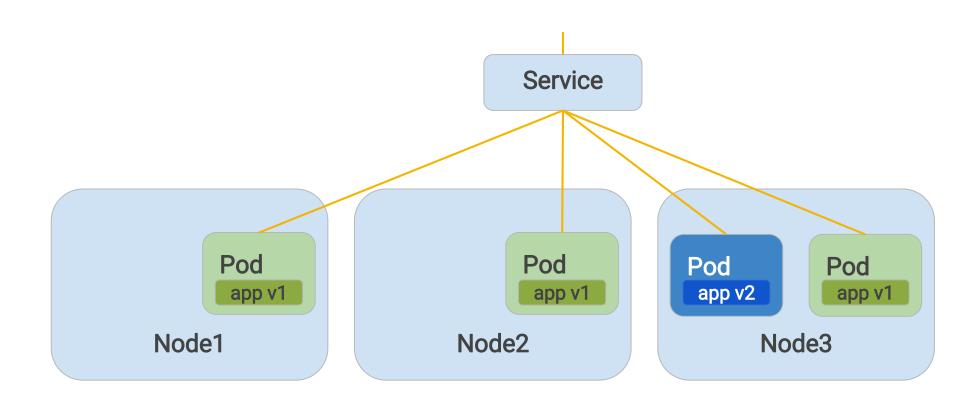


### Services

Persistent Endpoint for Pods

- Use Labels to Select Pods
- Internal or External IPs





#### YOUR TURN

### Orchestrating the cloud with Kubernetes

https://codelabs.developers.google.com/codelabs/cloud-orchestrate-with-kubernetes/#0