

Building Helm Charts



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Helm Charts



Building an Helm Chart
Installing a Release



Helm Chart Structure



Helm Chart Structure

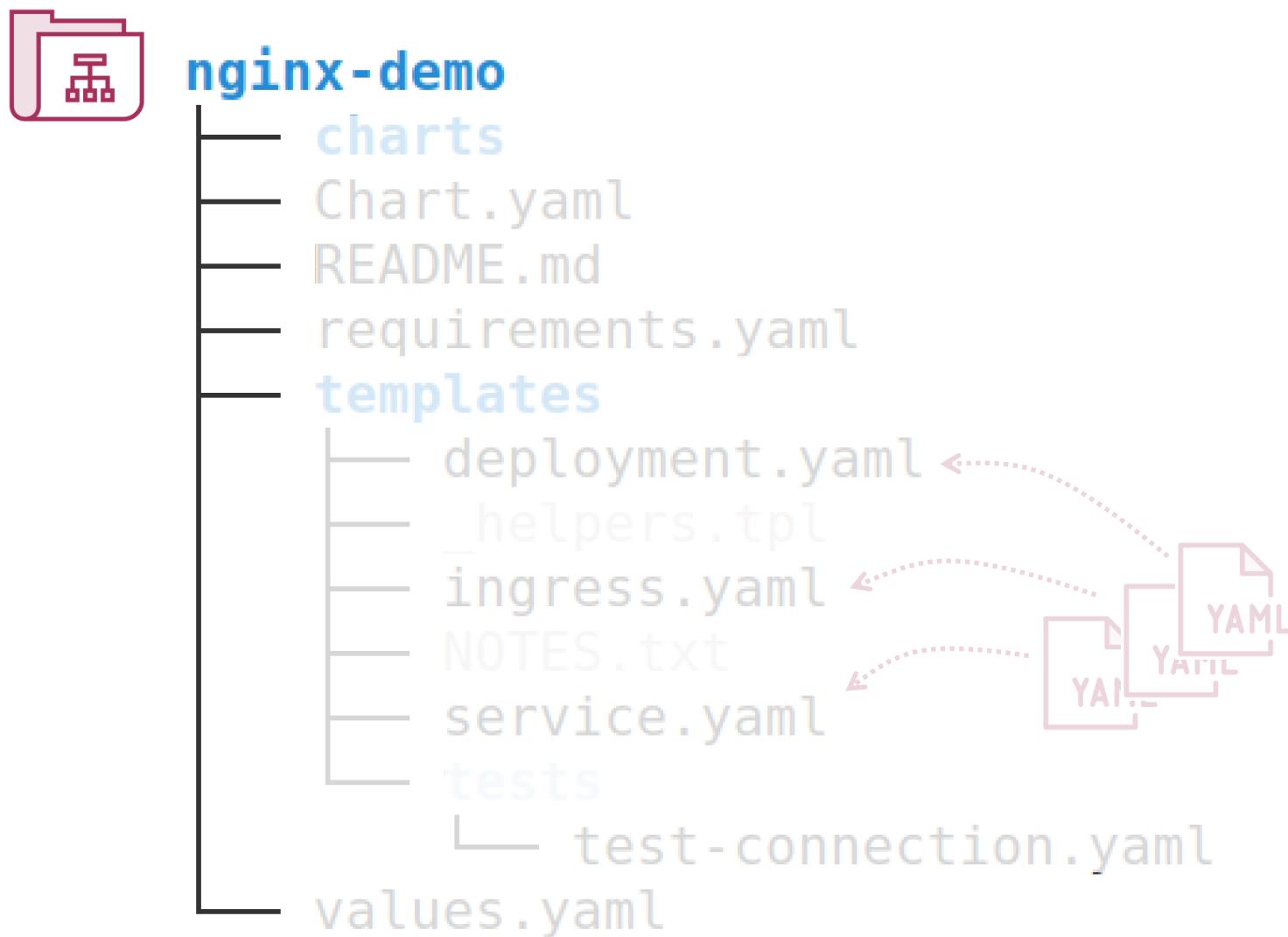
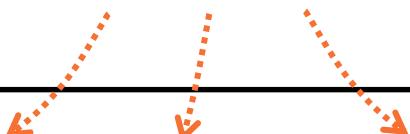


Chart.yaml

Chart.yaml

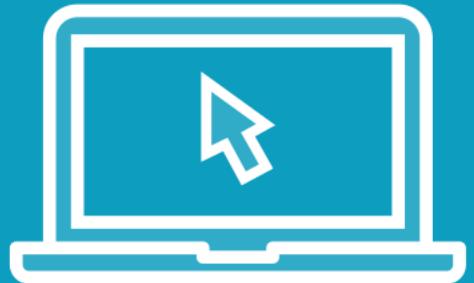
```
apiVersion: v1
appVersion: "1.0"
description: A Helm chart for Kubernetes
name: nginx-demo
version: 0.1.0
```



Major,Minor,Patch (SemVer 2.0)



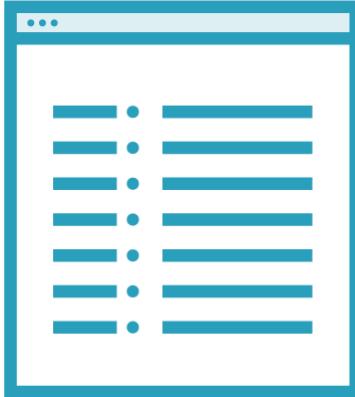
Demo



Building Guestbook Helm Chart



GuestBook application : First Version

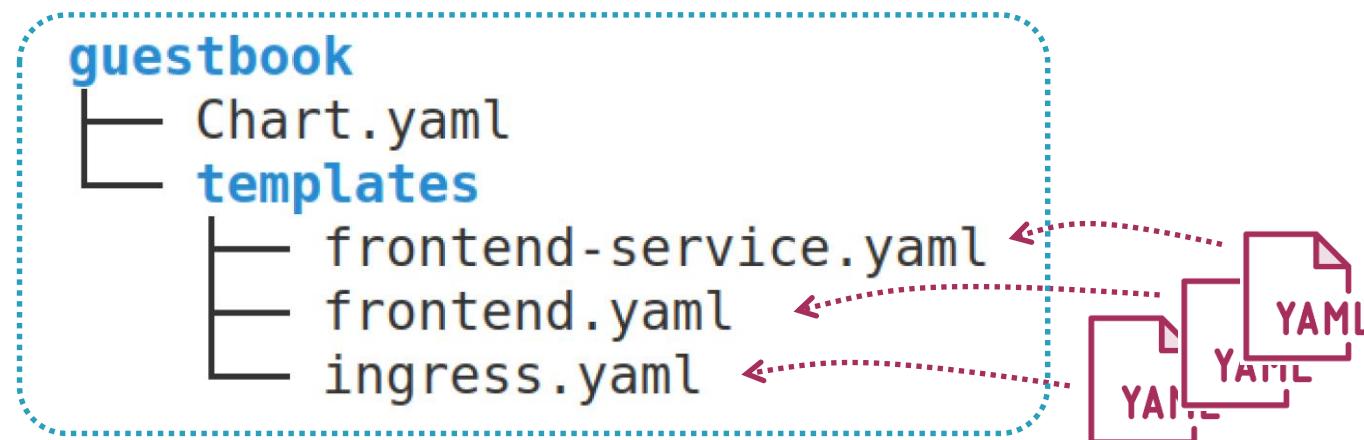


Frontend

- ✓ Pod
- ✓ Service
- ✓ Ingress

[http://github.com/phcollignon/helm/
lab5_helm_chart_version1](http://github.com/phcollignon/helm/lab5_helm_chart_version1)

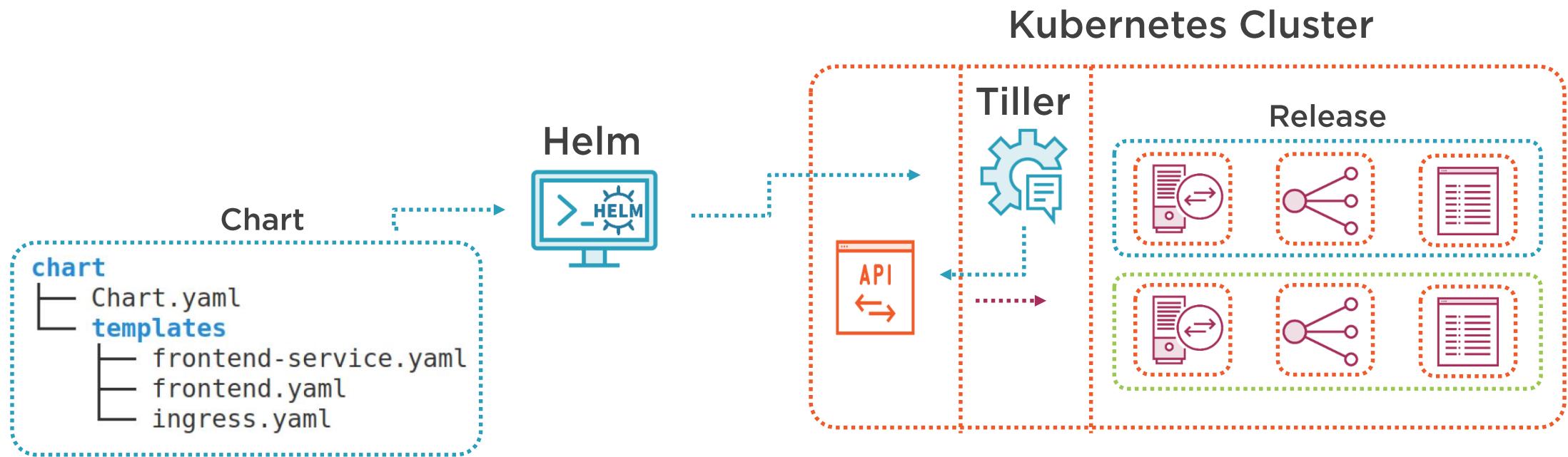
Building Guestbook Chart



Helm Concepts



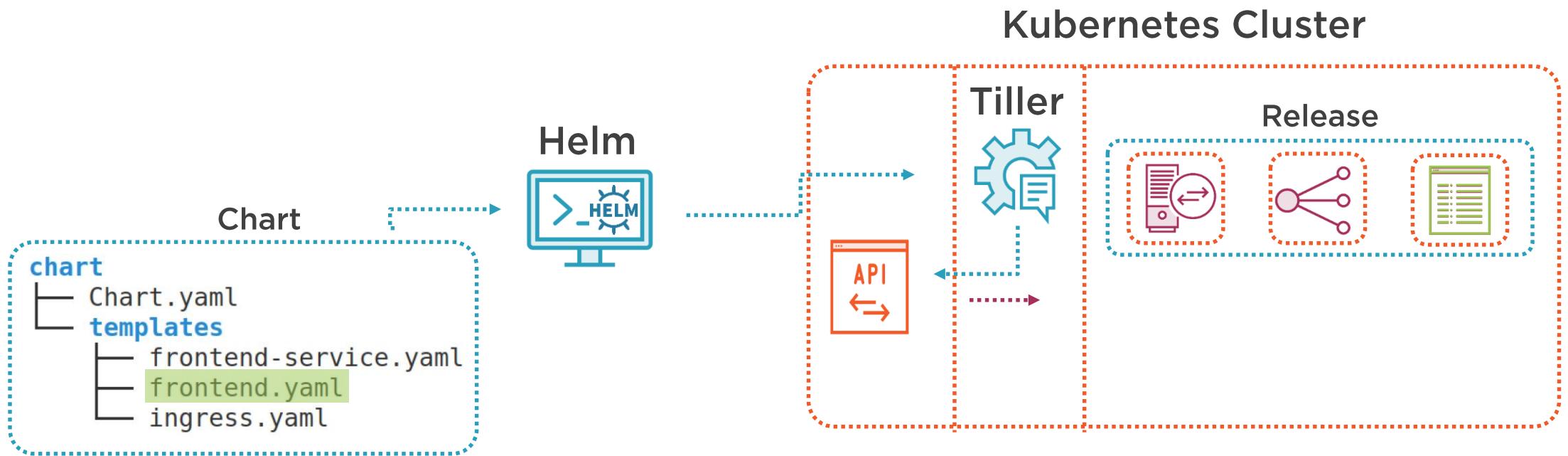
Helm Release



👉 Helm Release



Release revision



Release revision



Chart version

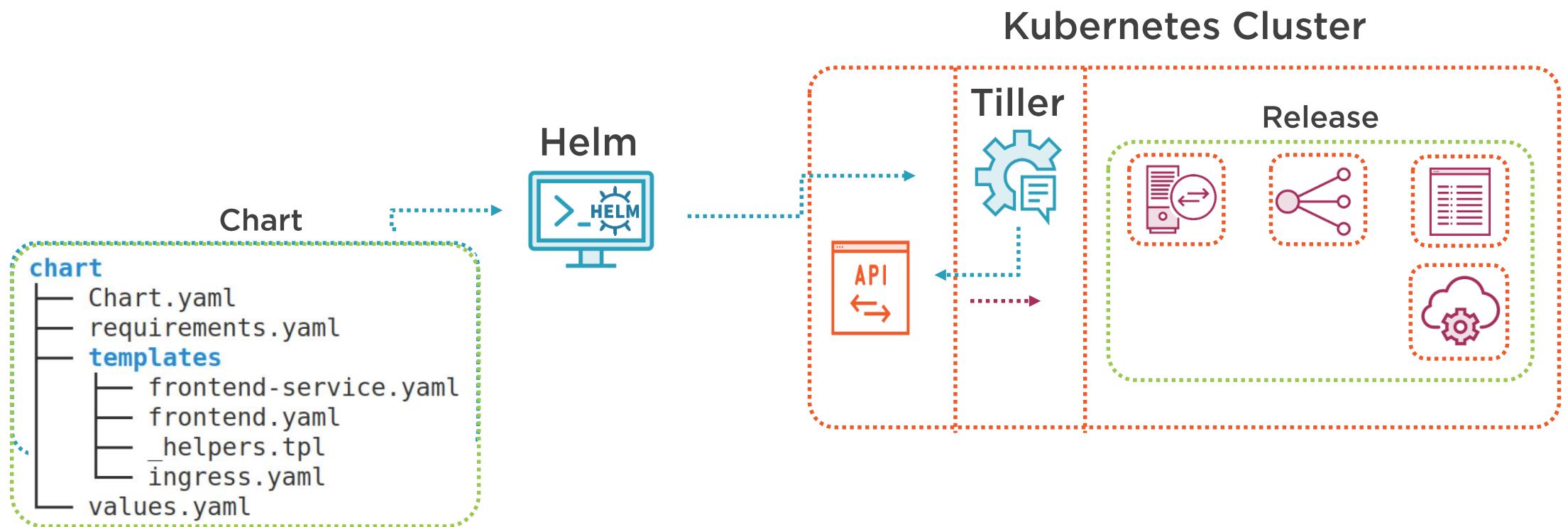


Chart version



Kubernetes Cluster

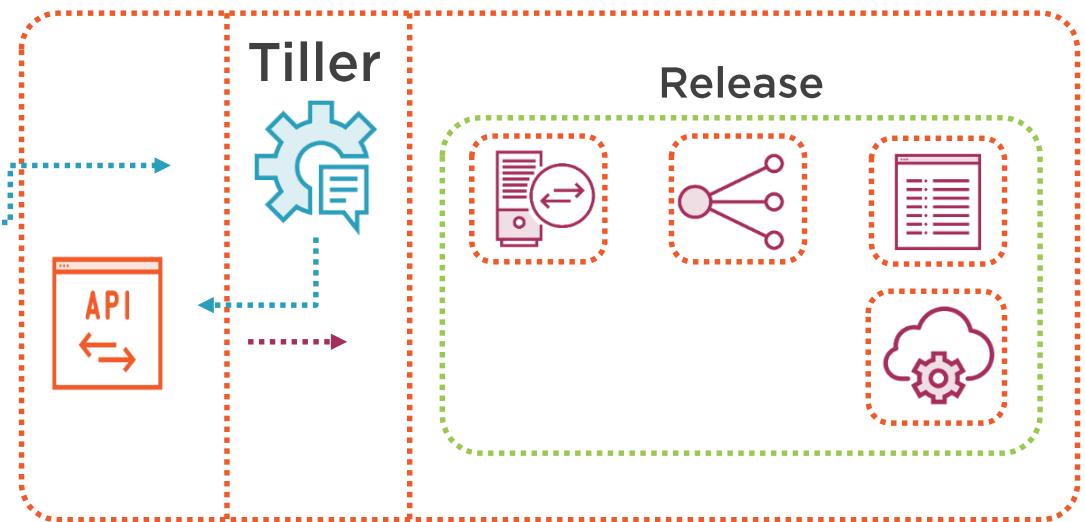


Chart : definition

Release : instance

Application version

Chart version

Release revision

Helm Concepts

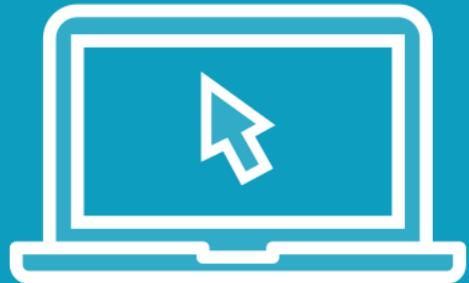


Helm commands

Action	Command
Install a Release	<code>helm install [chart]</code>
Upgrade a Release revision	<code>helm upgrade [release] [chart]</code>
Rollback to a Release revision	<code>helm rollback [release] [revision]</code>
Print Release history	<code>helm history [release]</code>
Display Release status	<code>helm status [release]</code>
Show details of a release	<code>helm get [release]</code>
Uninstall a Release	<code>helm delete [release]</code>
List Releases	<code>helm list</code>



Demo



Installing a Chart

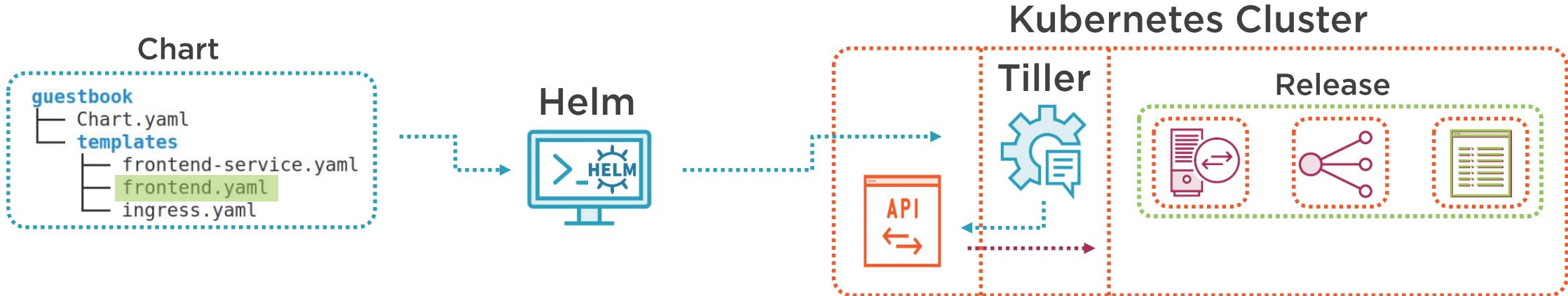
Upgrading a Release

Rolling Back a Release

Deleting a Release

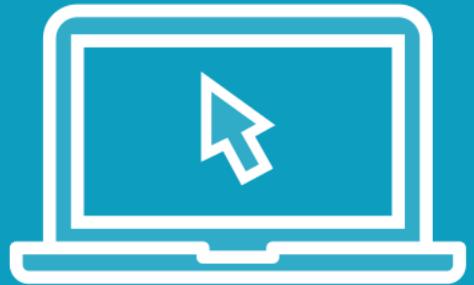


Upgrading Guestbook Release



[http://github.com/phcollignon/helm/
lab5_helm_chart_version1](http://github.com/phcollignon/helm/lab5_helm_chart_version1)

Demo



Upgrading Release to version 2.0
Building an Umbrella Chart

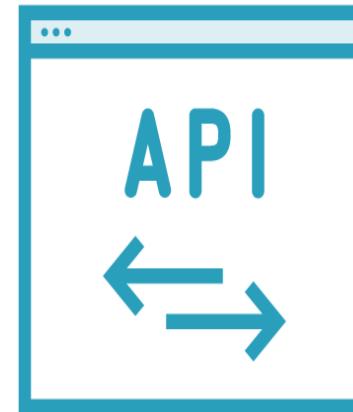


GuestBook application : Second Version



Frontend

- ✓ ConfigMap
- ✓ Pod
- ✓ Service
- ✓ Ingress



Backend API

- ✓ Secret
- ✓ Pod
- ✓ Service



Database

- ✓ Secret
- ✓ PV
- ✓ PVC
- ✓ Pod
- ✓ Service

[http://github.com/phcollignon/helm/
lab6_helm_chart_version2](http://github.com/phcollignon/helm/lab6_helm_chart_version2)

Building Guestbook Umbrella Chart

