Packaging Applications with Helm for Kubernetes

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Be organized with archives !

Use package managers

Kubernetes application contains many Kubernetes objects

Simplify your life with Helm

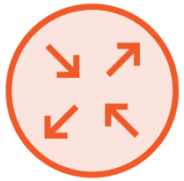
Helm ?

What is Helm ?

How Helm works ?

What is an Helm chart ?

How to define dependencies ?



What is an Helm repository ?

How to install application with Helm ?

Course Overview

Discovering Helm

Building Helm charts

Customizing charts with Helm templates

Managing charts dependencies

Using existing charts from repositories

Learn & Practice

Learn the theory!

Practice with 11 Labs!

Demo

Installing Kubernetes with Helm

Building an Helm Chart

- Umbrella Chart

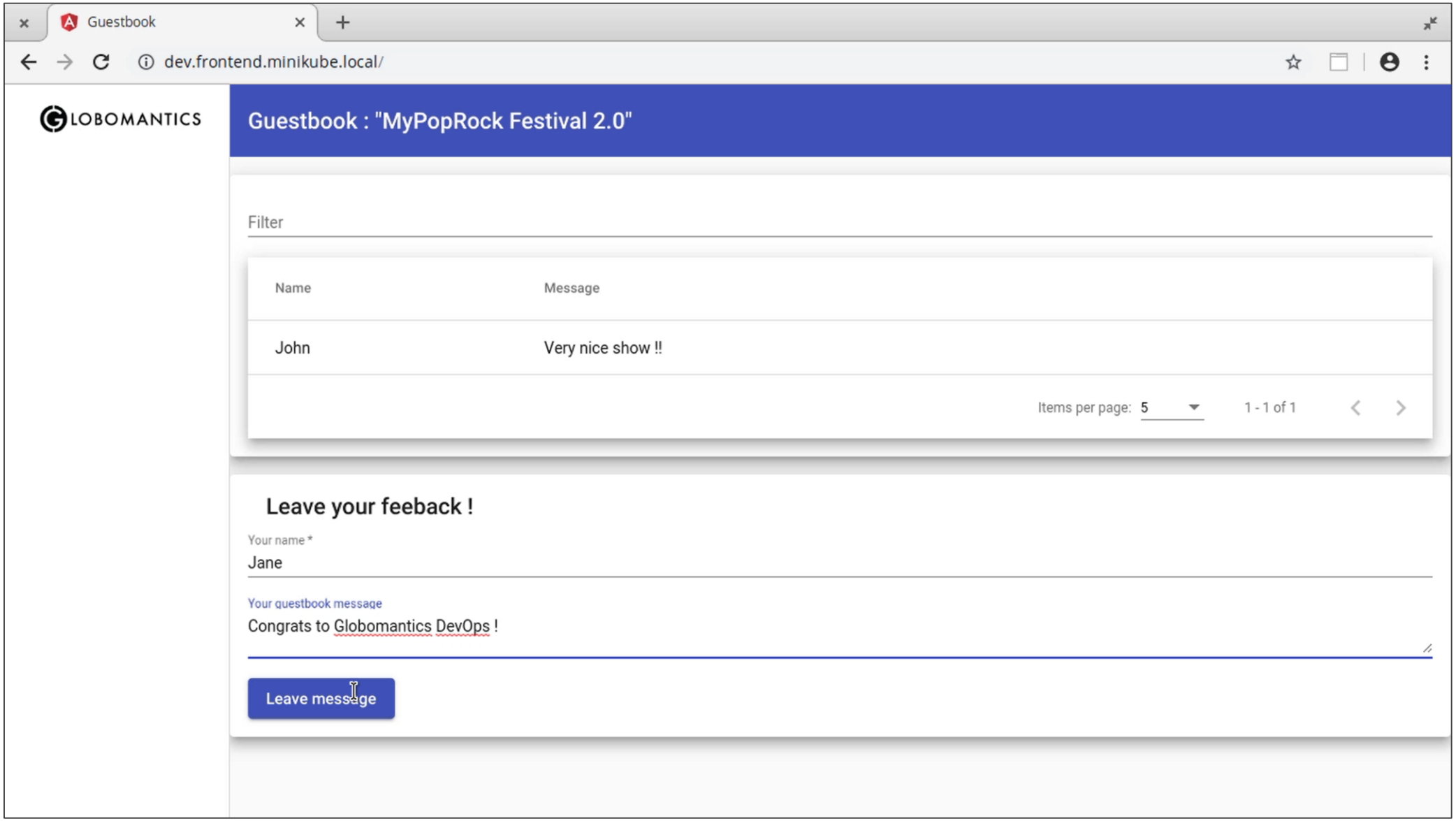
Installing a Release

Customizing Helm Templates

Managing dependencies

Packaging and working with repositories

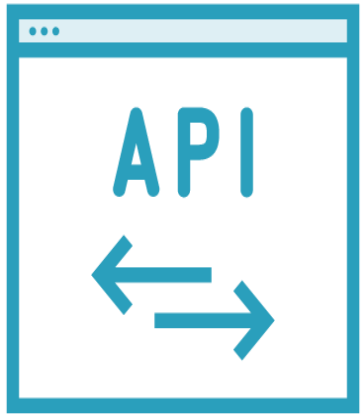
Sample Application : Guestbook for Events



GuestBook for Events Application

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

Frontend



- ✓ Secret
- ✓ Pod
- ✓ Service

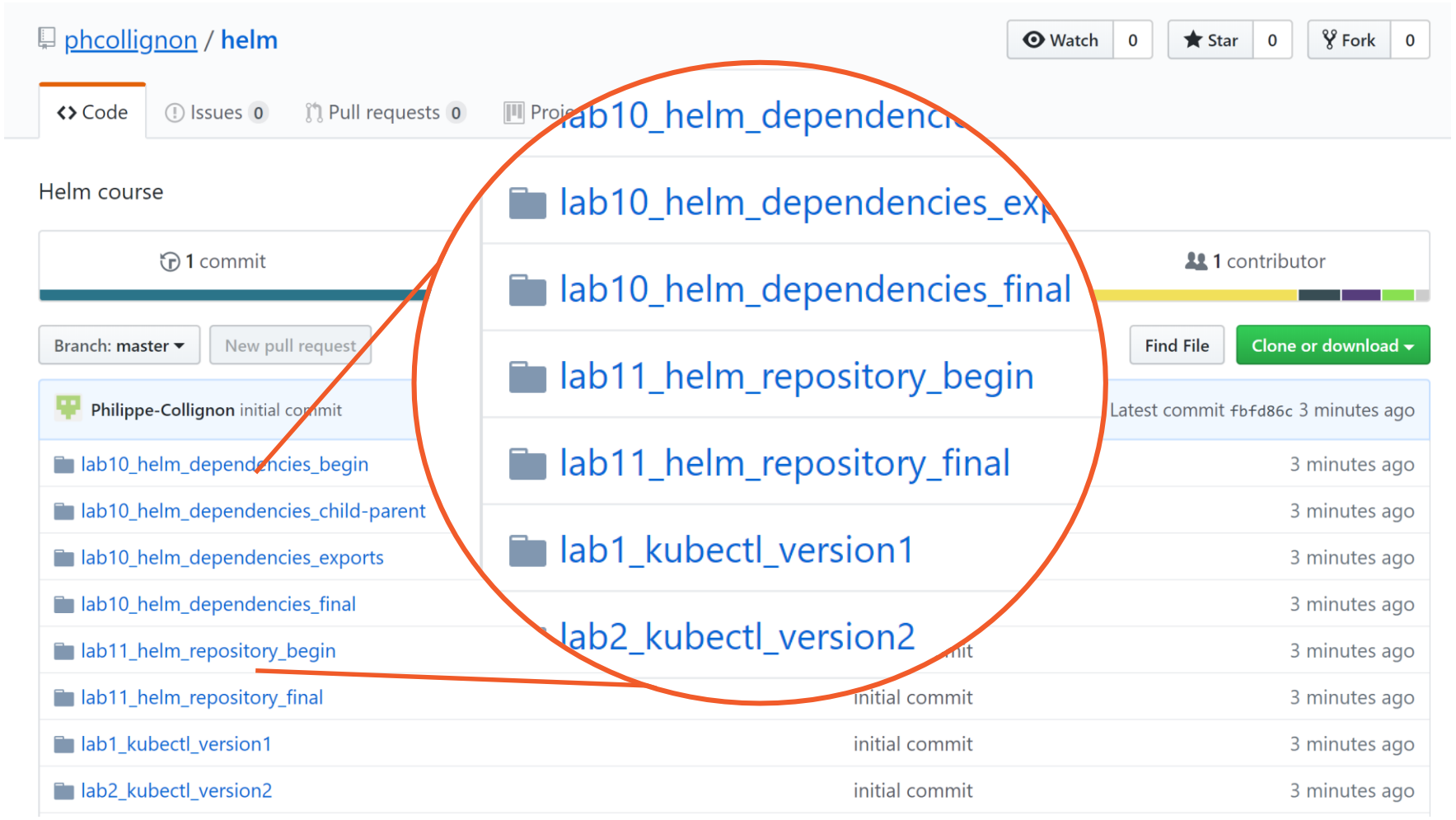
Backend API

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

Database

Source Code for Labs

https://github.com/phcollignon/helm



Prerequesites

- Kubernetes concepts
- No required programming
- Basic virtual machine experience
- Unix shell

Goal for Attendees

Understand Helm concepts

Build and customize a Chart

Use Helm to install and manage Kubernetes application versions