

Packaging Applications with Helm for Kubernetes



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Be organized with archives !

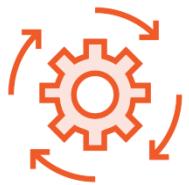
Use package managers

**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



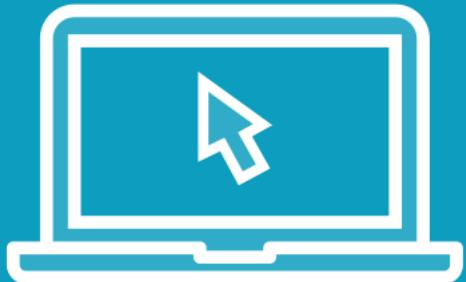
Learn the theory!



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

The screenshot shows a web browser window with the title bar "Guestbook". The address bar displays the URL "dev.frontend.minikube.local/". The main content area has a blue header bar with the text "Guestbook : "MyPopRock Festival 2.0"" and the "GLOBOMANTICS" logo. Below the header is a table with two columns: "Name" and "Message". A single row is visible, showing "John" in the Name column and "Very nice show !!". To the right of the table are pagination controls: "Items per page: 5", "1 - 1 of 1", and navigation arrows. Below the table is a section titled "Leave your feedback!". It contains fields for "Your name *" (with "Jane" entered) and "Your questbook message" (with "Congrats to Globomantics DevOps!"). At the bottom is a blue button labeled "Leave message".

Name	Message
John	Very nice show !!

Items per page: 5 1 - 1 of 1 < >

Leave your feedback !

Your name *

Jane

Your questbook message

Congrats to Globomantics DevOps !

Leave message

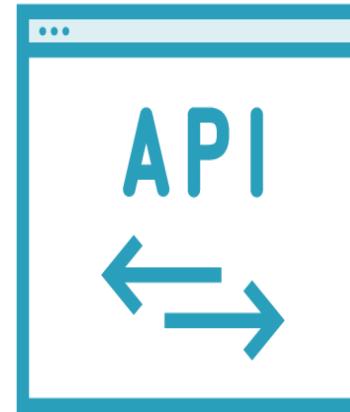


GuestBook for Events Application



Frontend

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



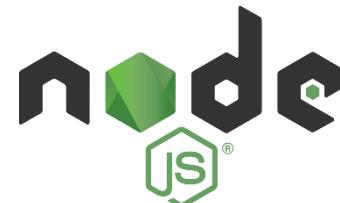
Backend API

- ✓ Secret
- ✓ Pod
- ✓ Service



Database

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



Source Code for Labs

<https://github.com/phcollignon/helm>

phcollignon / helm

Code Issues Pull requests Projects lab10_helm_dependencies_begin

Helm course

1 commit

Branch: master New pull request

Philippe-Collignon initial commit

- lab10_helm_dependencies_begin
- lab10_helm_dependencies_child-parent
- lab10_helm_dependencies_exports
- lab10_helm_dependencies_final
- lab11_helm_repository_begin
- lab11_helm_repository_final
- lab1_kubectl_version1
- lab2_kubectl_version2

1 contributor

Find File Clone or download ▾

Latest commit fbfdf86c 3 minutes ago

initial commit

initial commit

initial commit

initial commit



Prerequisites



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

