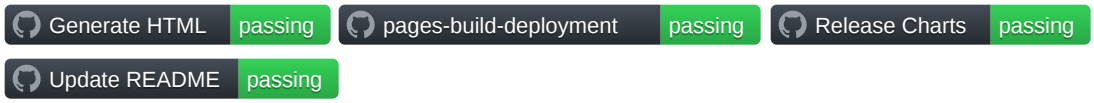
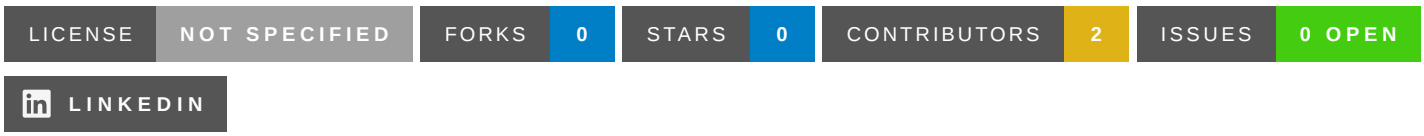
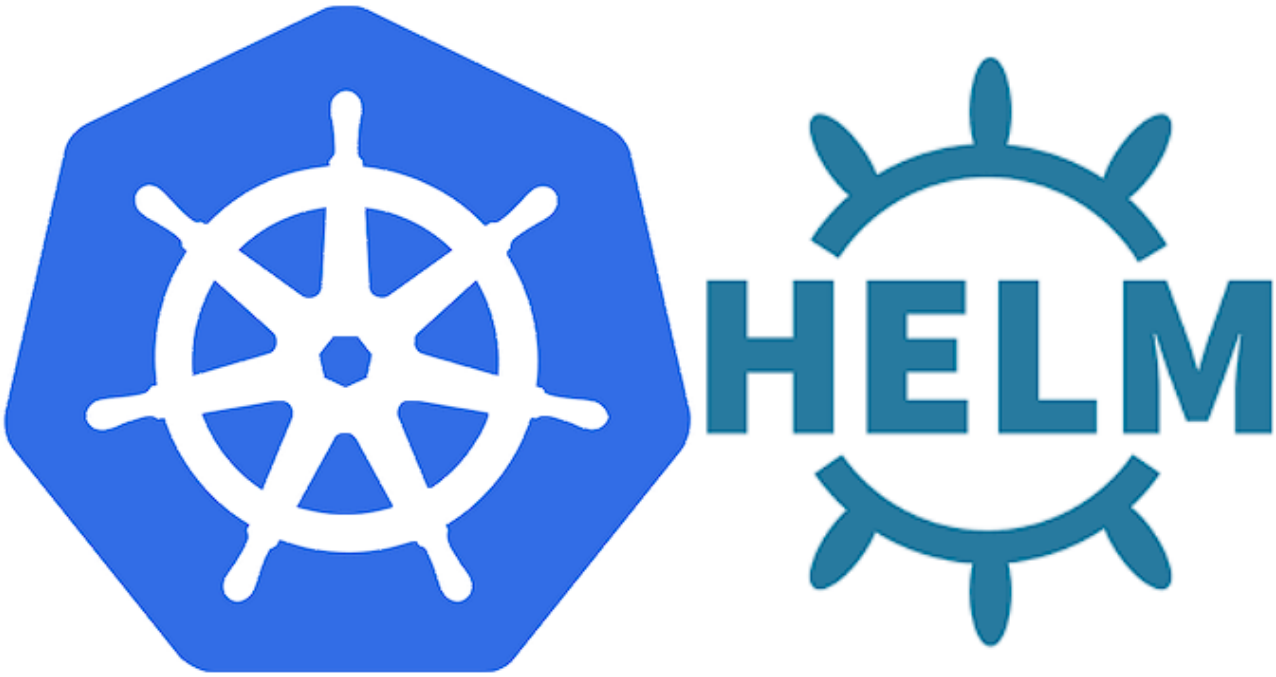
 Dark





LEARNING HELM



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Summary

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About Project

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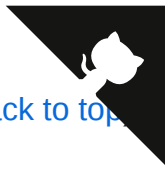
This project aims to help students or professionals to learn the main concepts of helm



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Getting Started

This is an example of how you may give instructions on setting up your project locally. To get a local copy up and running follow these simple example steps.

Prerequisites

This is an example of how to list things you need to use the software and how to install them.

- git
- kubernetes cluster up

Installation

Clone repository

```
git clone https://github.com/marcossilvestrini/learning-helm.git
```

Usage

Use this repository for get learning about helm exam

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Roadmap

- [x] Create repository
- [x] Create a kubernetes cluster
- [x] Install helm
- [x] Add Examples of helm charts

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Create Kubernetes Cluster

Minikube

```
# install
curl -Lo minikube https://storage.googleapis.com/minikube/releases/latest/minikube-li
chmod +x ./minikube
sudo mv ./minikube /usr/local/bin/minikube

# get version
minikube version

# set hypervisor
minikube config set driver <YOUR_HYPERVISOR>

# up without hypervisor
minikube start --driver=hyperkit

# create cluster
minikube start --nodes 3 -p multinode-cluster

# get status of cluster
minikube status

# get ip address
minikube ip

# access minikube host
minikube ssh

# dashboard
minikube dashboard

# logs
minikube logs

# delete cluster
minikube delete
minikube delete --purge
```

Kind

```
# Install
curl -Lo ./kind https://kind.sigs.k8s.io/dl/v0.14.0/kind-linux-amd64
chmod +x ./kind
sudo mv ./kind /usr/local/bin/kind

# create cluster
```

```
kind create cluster
kind create cluster --name silvestrini

# get clusters
kind get clusters

# delete clusters
kind delete clusters $(kind get clusters)

## create yaml
cat << EOF > $HOME/kind-3nodes.yaml
kind: Cluster
apiVersion: kind.x-k8s.io/v1alpha4
nodes:
  - role: control-plane
  - role: worker
  - role: worker
EOF

# create cluster
kind create cluster --name kind-multinodes --config $HOME/kind-3nodes.yaml
```

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Kubectl

Install

```
# install
curl -LO https://storage.googleapis.com/helm-release/release/`curl -s \
https://storage.googleapis.com/helm-release/release/stable.txt`/bin/linux/amd64/kubec
chmod +x ./kubectl
mv ./kubectl /usr/local/bin/kubectl

# get version
kubectl version  --output=yaml --client

# kubectl autocomplete
source <(kubectl completion bash)

# kubectl alias
alias k=kubectl
complete -F __start_kubectl k
```

Install Helm

```
curl https://raw.githubusercontent.com/helm/helm/main/scripts/get-helm-3 | bash
helm version
```

(back to install-helm)

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Helm Repositories

```
# list available repositories
helm repo list

# add repositories
helm repo add bitnami https://charts.bitnami.com/bitnami

# update repositories
helm repo update

# remove repositories
helm repo remove bitnami
```

(back to helm-repo)

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Helm Packages

```
# list available packages
helm list
helm list -n silvestrini
helm list -A

# install package
helm install silvestrini-phpmyadmin bitnami/phpmyadmin
helm upgrade --install silvestrini-phpmyadmin bitnami/phpmyadmin
```

```
# install package in specified namespace
helm install --namespace silvestrini silvestrini-phpmyadmin bitnami/phpmyadmin

# upgrade packages
helm upgrade silvestrini-phpmyadmin bitnami/phpmyadmin

# uninstall package
helm uninstall silvestrini-phpmyadmin
```

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Helm Charts

Chart structure

```
wordpress/
  Chart.yaml          # A YAML file containing information about the chart
  LICENSE             # OPTIONAL: A plain text file containing the license for the ch
  README.md           # OPTIONAL: A human-readable README file
  values.yaml         # The default configuration values for this chart
  values.schema.json  # OPTIONAL: A JSON Schema for imposing a structure on the value
  charts/             # A directory containing any charts upon which this chart depen
  crds/               # Custom Resource Definitions
  templates/          # A directory of templates that, when combined with values,
                      # will generate valid Kubernetes manifest files.
  templates/NOTES.txt # OPTIONAL: A plain text file containing short usage notes
```

Helm Chart - Commands

```
# generate chart
helm create mychart

# get chart information
helm get manifest mychart

# Install chart
helm install mychart-v1 ./examples/mychart

# Simulate \ Debug install
helm install --debug --dry-run mychart-v3 ./examples/mychart

# get chart resources \ manifest
```

```
helm get manifest mychart-v1

# remove chart
helm uninstall mychart-v1
```

File

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Contributing

Contributions are what make the open source community such an amazing place to learn, inspire, and create. Any contributions you make are **greatly appreciated**.

If you have a suggestion that would make this better, please fork the repo and create a pull request. You can also simply open an issue with the tag "enhancement". Don't forget to give the project a star! Thanks again!

1. Fork the Project
2. Create your Feature Branch (`git checkout -b feature/AmazingFeature`)
3. Commit your Changes (`git commit -m 'Add some AmazingFeature'`)
4. Push to the Branch (`git push origin feature/AmazingFeature`)
5. Open a Pull Request

License

- This project is licensed under the MIT License * see the LICENSE.md file for details

Contact

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Follow @mrsilvestrini

Project Link: https://github.com/marcossilvestrini/learning-helm

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Acknowledgments

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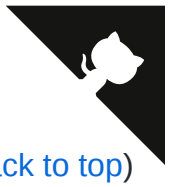
- Helm Oficial Doc
- Artifact Hub



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