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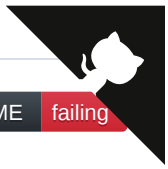
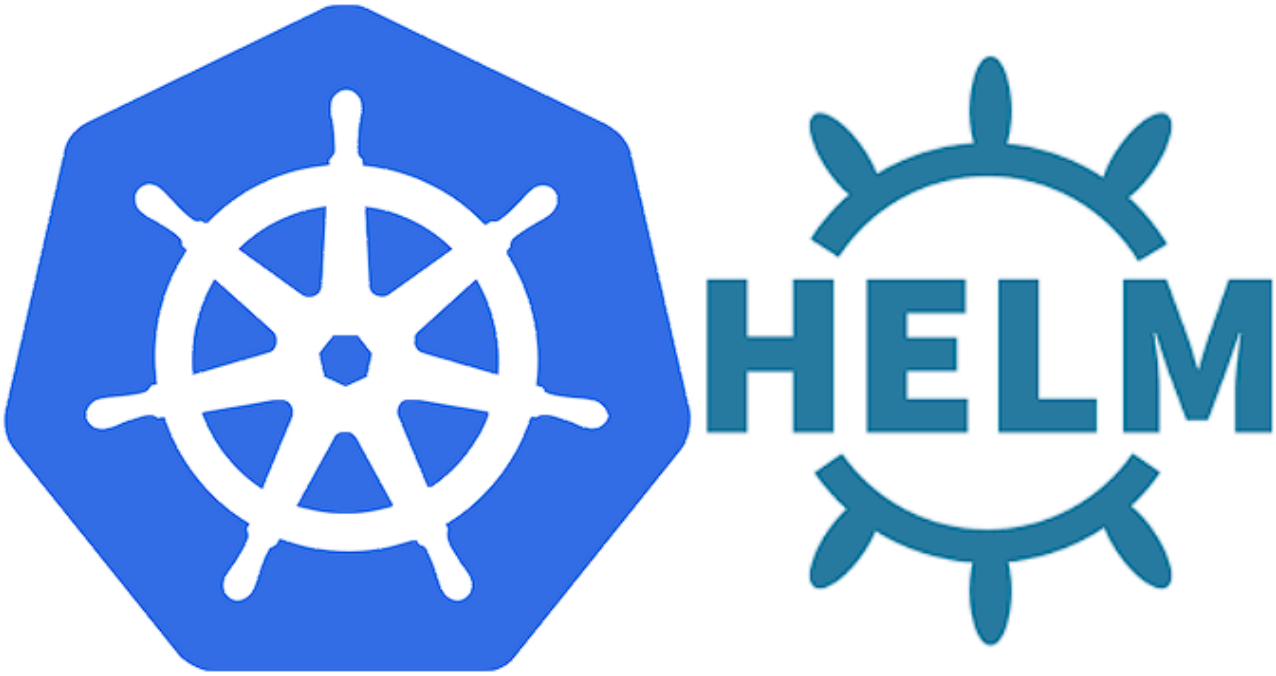




# LEARNING HELM



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## Summary

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## About Project

> 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
```

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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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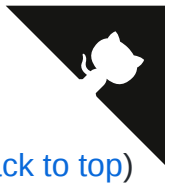
- Helm Oficial Doc
- Artifact Hub



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