

ondia

Helm

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## Helm

Helm is the package manager for Kubernetes



## Helm

Package Yaml Files

Distributing in Public or Private repositories



## Three Big Concepts

A **Chart** is a Helm package. It contains all of the resource definitions necessary to run an application, tool, or service inside of a Kubernetes cluster.

A **Repository** is the place where charts can be collected and shared.

A **Release** is an instance of a chart running in a Kubernetes cluster. One chart can often be installed many times into the same cluster. And each time it is installed, a new release is created.

## Three Big Concepts

HELM

DOCKER

**Chart** -----> **Image**

**Repository** -----> **ECR- Docker hub**

**Release** -----> **Container**

## Helm Chart

**Bundle of Yaml Files**

**Create your own chart with Helm**

**Push them to repo**

**Pull it from existing repo ex - Mongo DB,  
Monitoring tools etc**

```
mychart/  
Chart.yaml  
values.yaml  
charts/  
templates/  
...
```

## Helm Commands - Install and Uninstall Apps

Install an app:

```
helm install [app-name] [chart]
```

Install an app in a specific namespace:

```
helm install [app-name] [chart] --namespace [namespace]
```

Override the default values with those specified in a file of your choice:

```
helm install [app-name] [chart] --values [yaml-file/url]
```

Run a test installation to validate and verify the chart:

```
helm install [app-name] --dry-run --debug
```

Uninstall a release:

```
helm uninstall [release]
```

## Helm Commands - Perform App Upgrade and Rollback

Upgrade an app:

```
helm upgrade [release] [chart]
```

Instruct Helm to rollback changes if the upgrade fails:

```
helm upgrade [release] [chart] --atomic
```

Upgrade a release. If it does not exist on the system, install it:

```
helm upgrade [release] [chart] --install
```

Upgrade to a specified version:

```
helm upgrade [release] [chart] --version [version-number]
```

Roll back a release:

```
helm rollback [release] [revision]
```

## Helm Commands - Add, Remove, and Update

### Repositories

Add a repository from the internet:

```
helm repo add [repository-name] [url]
```

Remove a repository from your system:

```
helm repo remove [repository-name]
```

Update repositories:

```
helm repo update
```

## Helm Commands - List and Search Repositories

List chart repositories:

```
helm repo list
```

Generate an index file containing charts found in the current directory:

```
helm repo index
```

Search charts for a keyword:

```
helm search [keyword]
```

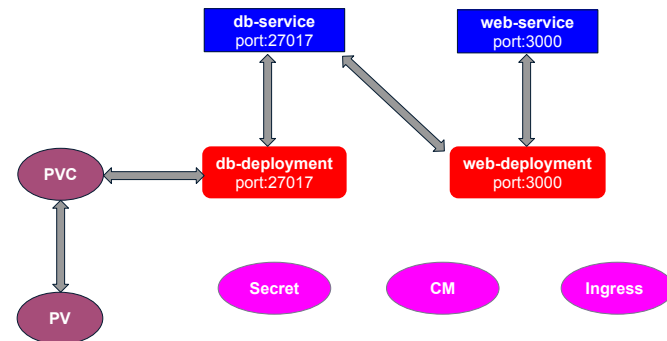
Search repositories for a keyword:

```
helm search repo [keyword]
```

Search Helm Hub:

```
helm search hub [keyword]
```

## Helm



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# THANKS!

Any questions?



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