Using Existing Helm Charts



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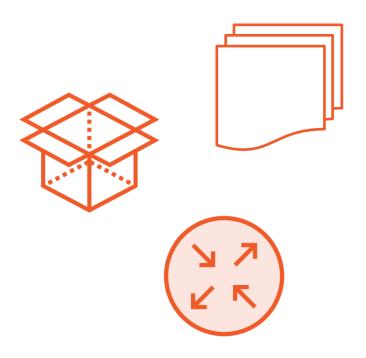
Using Existing Helm Charts



Helm Stable Repository
Search for existing charts
Use existing charts
Customizing child values



From Package to Hub



Sources

- ⇒ Packages
 - **⇒** Repositories
 - \Rightarrow Hub

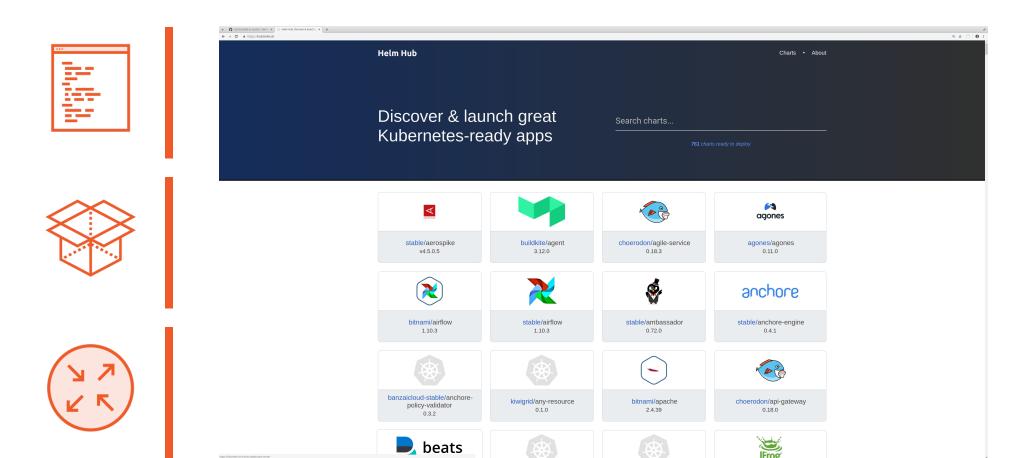


Analogies

Helm	Docker	Java	Javascript
file.yaml	System files	file.java	file.js
Chart	Image	Jar, ear	module
Helm	Docker	Maven	Npm
Chart.yaml / requirements.yaml	Dockerfile (FROM)	pom.xml	pakage.json
Helm repository	Docker repository	Maven repository	npmjs.com
Helm Stable repository	Docker hub	Maven central	npmjs.com
hub.helm.sh	hub.docker.org	search.maven.org	npmjs.com



Helm Stable Repository





Using the Command Line

- > helm repo list_{add} helm repo
- > helm search [hub | helm repo keyword
- > helm inspect [all | readme | chart | values] chart_name
- > helm show values
- > helm fetch chart_name
- > helm dependency update chart_name



Customizing Existing Charts



Values and Sub-charts

```
secret:
guestbook/
                             mongodb_uri:
  charts/
                                                           Child Chart
    backend/
                               username: your_user
                                                           values.yaml
      templates/
                               password: your_password
      Chart.yaml
                         service:
      values.yaml
                           type: NodePort
    database/
                                Guestbook:
    frontend/
                                  title: "Co
                                                  for Climate"
                                             er
  Chart.yaml
                                backend:
  values.yaml
                                                                  Parent Chart
                                  secret:
                                                                  values.yaml
                                    mongodb_uri:
                                      username: admin
                                      password: password
```

Exporting Child Values: "exports:"

Child values.yaml

```
exports:
questbook/
                                                                    Chart.yaml
                        data:
  charts/
    frontend/
                          mongodb_uri:
                                                          dependencies:
     templates/
                             username: admin
                                                            - name: frontend
     Chart.yaml
     values.yaml "
                             password: password
                                                              version : ~1.2.1
   backend-1.2.2.tgz
                                                              repository: http://...
   database-1.2.2.tgz
  templates/
                                                              import-values:
   NOTES.txt
                        Guestbook:
                                                                - data
   ingress.yaml
                          title: "Con rt for Climate"
  Chart.yaml
                        mongodb_uri: 🌣 🏋
  requirements.lock
  requirements.yaml
                          username: your_user
 values.yaml .....
    http://github.com/phcollignon/helm3/
```



lab10_helm_dependencies_export

.username }}

Exporting Child Values: "child-parent"

Child values.yaml

```
questbook/
                                                                    Chart.yaml
                       data:
  charts/
                         mongodb_uri:
                                                           dependencies:
    frontend/
      templates/
                           username: admin
                                                            - name: frontend
      Chart.yaml
                           password: password
                                                              version : ~1.2.1
     values.yaml ....
                                                              repository: http://...
    backend-1.2.2.tgz
    database-1.2.2.tgz
                                                              import-values:
  templates/
                                                                - child: data
   NOTES.txt
                        frontend_data:
    ingress.yaml
                                                                  parent: frontend_data
  Chart.yaml
                          mongodb_uri: 🔆 🦙
  requirements.lock
                            username: your_user
  requirements.yaml
 values.yaml .....
                            password: your_password
```



http://github.com/phcollignon/helm3/

lab10_helm_dependencies_child-parent

pngodb_uri.username }}

Global Values

```
guestbook/
                        secret:
  charts/
                            mongodb_uri:
    backend/
                                                          Child Chart
                              username: your_user
      templates/
                                                          values.yaml
                              password: your_password
      Chart.yaml
                               global:
      values.yaml
                        servi
                                 id: "Id<AcB123FDx23>"
                          typ
    database/
    frontend/
  Chart.yaml
                                                          ate"
                   metadata:
  values.yaml
                     labels:
                                                                 Parent Chart
                       app.id : {{ .Values.global.id}}
                                                                 values.yaml
                                     username: admin
                                     password: password
```



Demo



Using Existing Stable MongoDB Charts

http://github.com/phcollignon/helm3/lab11_helm_repository_begin lab11_helm_repository_final



Demo



Installing WordPress in Kubernetes in 1 minute!

Let's do it!



Summary



Using existing charts

Helm repository

Helm commands

Helm hub

Customize existing charts

Override values

Export values

Map values: child-parent

Install stable/mongoDB

Install a Wordpress blog with Helm



