

Workshop Kubernetes

Advanced

1- Setup

- Install Helm
- \$ helm completion bash

2- Package

Using Helm, deploy a PostgreSQL server (the Bitnami chart is nice)

- Can you list pods running in your cluster ?
- Can you send an SQL query to your database ?

How would you list the available releases of this PostgreSQL Helm Chart ?

- Can you upgrade ?
- Can you downgrade ?

Now, please delete the running PostgreSQL server.

3- Improve

The public Helm chart can be overridden by custom configurations.

- Can you change the username/password of the database ?
- For better performance, please add 2 slaves to your PostgreSQL server
- You should be able to reach PostgreSQL slaves on a dedicated endpoint

In the postgresql.conf file of PostgreSQL containers, add some custom configurations:

- 100 max connections
- 2s of query timeout

4- Build

Now, create your first Helm template for the hello-world application you deployed earlier.

5- Bonus: Sky's the limit

Helm is nice for creating deployment templates.

But you may need to use those charts for different environments, with different configurations.

Do you know Kustomize ? Can you write a generic description of your hello-world application ? Then a custom configuration for staging and production ?