

# Using Existing Helm Charts

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# Using Existing Helm Charts



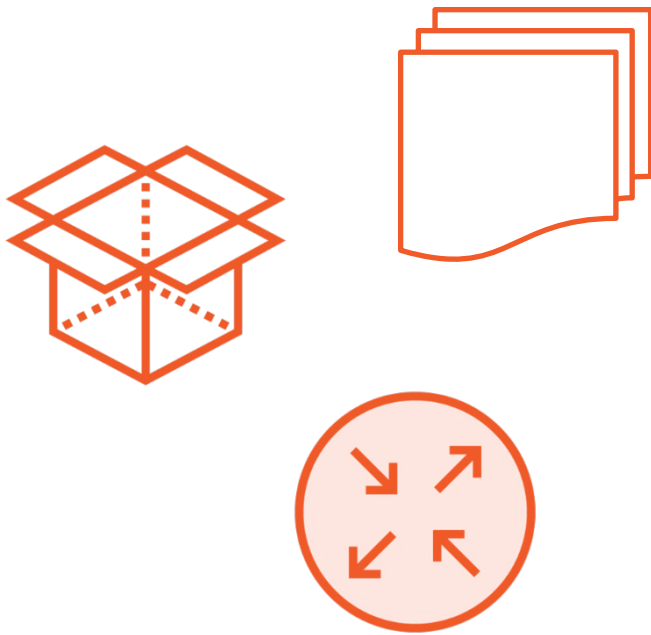
**Helm Stable Repository**

**Search for existing charts**

**Use existing charts**

**Customizing child values**





# From Package to Hub

**Sources**

⇒ **Packages**

⇒ **Repositories**


⇒ **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	package.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 Repositories





STATS SIGN UP SIGN IN 




**mongodb**

☆ Star 66   

ORG: Bitnami REPO:  Helm chart Bitnami  Verified Publisher

MongoDB(R) is a relational open source NoSQL database. Easy to use, it stores data in JSON-like documents. Automated scalability and high-performance. Ideal for developing cloud native applications.

👤 SUBSCRIPTIONS: 27 🏢 PRODUCTION USERS: 1

 **mongodb**

## MongoDB(R) packaged by Bitnami

MongoDB(R) is a relational open source NoSQL database. Easy to use, it stores data in JSON-like documents. Automated scalability and high-performance. Ideal for developing cloud native applications.

[Overview of MongoDB®](#)


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### TL;DR


```
$ helm repo add bitnami https://charts.bitnami.com/bitnami
$ helm install my-release bitnami/mongodb
```


### Introduction

↓ INSTALL

 TEMPLATES


 DEFAULT VALUES

 VALUES SCHEMA

 CHANGELOG

APPLICATION VERSION

5.0.9

CHART VERSIONS 


12.1.13 (27 May, 2022)

12.1.12 (26 May, 2022)

12.1.11 (23 May, 2022)

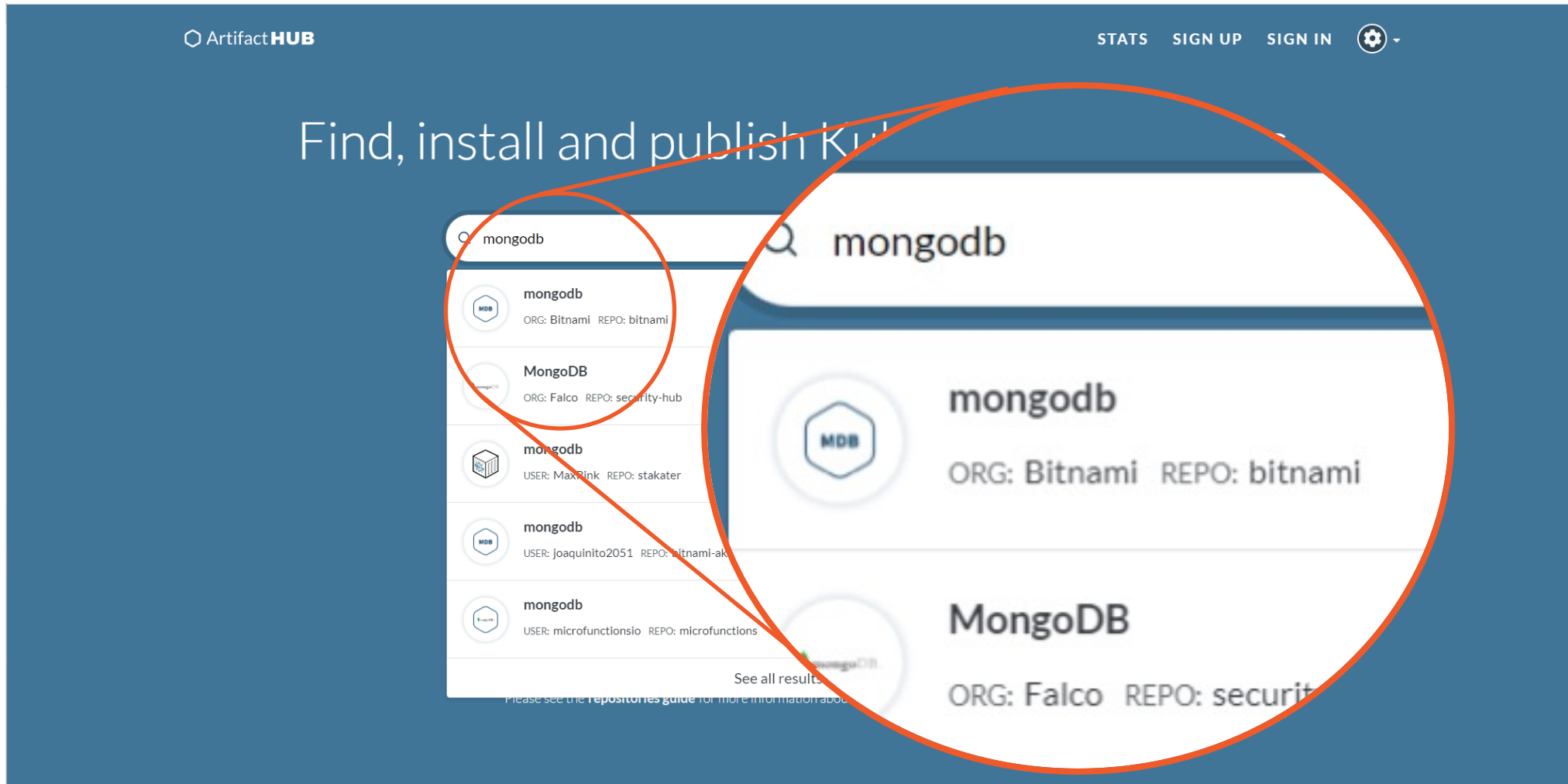
➕ See all (364)

LAST YEAR ACTIVITY





# Helm Repositories



# Using the Command Line

```
> helm repo list [ + ] helm repo
add
> helm search [hub |] helm repo keyword
remove
> helm inspect [all | readme | chart | values ] chart_name
> helm show values chart_name
> helm fetch chart_name
> helm dependency update chart_name
```



# Customizing Existing Charts

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# Values and Sub-charts

```
guestbook/  
| charts/  
| | backend/  
| | | templates/  
| | | Chart.yaml  
| | | values.yaml  
| | database/  
| | frontend/  
| Chart.yaml  
| values.yaml
```

```
secret:  
  mongodb_uri:  
    username: your_user  
    password: your_password  
service:  
  type: NodePort
```

Child Chart  
values.yaml

```
Guestbook:  
  title: "Concert for Climate"  
  backend:  
    secret:  
      mongodb_uri:  
        username: admin  
        password: password
```

Parent Chart  
values.yaml



# Exporting Child Values : “exports:”

## Child values.yaml

```
exports:  
  data:  
    mongodb_uri:  
      username: admin  
      password: password
```

## Chart.yaml

```
dependencies:  
- name: frontend  
  version : ~1.2.1  
  repository: http://...  
import-values:  
- data
```

```
Guestbook:  
  title: "Con rt for Climate"  
  mongodb_uri:  
    username: your_user
```

```
guestbook/  
| charts/  
| | frontend/  
| | | templates/  
| | | Chart.yaml  
| | | values.yaml  
| | backend-1.2.2.tgz  
| | database-1.2.2.tgz  
| templates/  
| | NOTES.txt  
| | ingress.yaml  
| Chart.yaml  
| requirements.lock  
| requirements.yaml  
| values.yaml
```

[http://github.com/phcollignon/helm3/  
lab10\\_helm\\_dependencies\\_export](http://github.com/phcollignon/helm3/lab10_helm_dependencies_export)

```
..username }}
```



# Exporting Child Values : “child-parent”

## Child values.yaml

```
data:
  mongodb_uri:
    username: admin
    password: password
```

```
frontend_data:
  mongodb_uri:
    username: your_user
    password: your_password
```

## Chart.yaml

```
dependencies:
- name: frontend
  version : ~1.2.1
  repository: http://...
import-values:
- child: data
  parent: frontend_data
```

```
guestbook/
| charts/
| | frontend/
| | | templates/
| | | Chart.yaml
| | | values.yaml
| backend-1.2.2.tgz
| database-1.2.2.tgz
| templates/
| | NOTES.txt
| | ingress.yaml
| Chart.yaml
| requirements.lock
| requirements.yaml
| values.yaml
```

```
mongodb_uri.username }}
```



[http://github.com/phcollignon/helm3/  
lab10\\_helm\\_dependencies\\_child-parent](http://github.com/phcollignon/helm3/lab10_helm_dependencies_child-parent)



# Global Values

```
guestbook/  
| charts/  
| | backend/  
| | | templates/  
| | | Chart.yaml  
| | | values.yaml  
| | database/  
| | frontend/  
| Chart.yaml  
| values.yaml
```

```
secret:  
  mongodb_uri:  
    username: your_user  
    password: your_password
```

Child Chart  
values.yaml

```
service: global:  
  type: id: "Id<AcB123FDx23>"
```

```
metadata:  
  labels:  
    app.id : {{ .Values.global.id }}
```

Parent Chart  
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

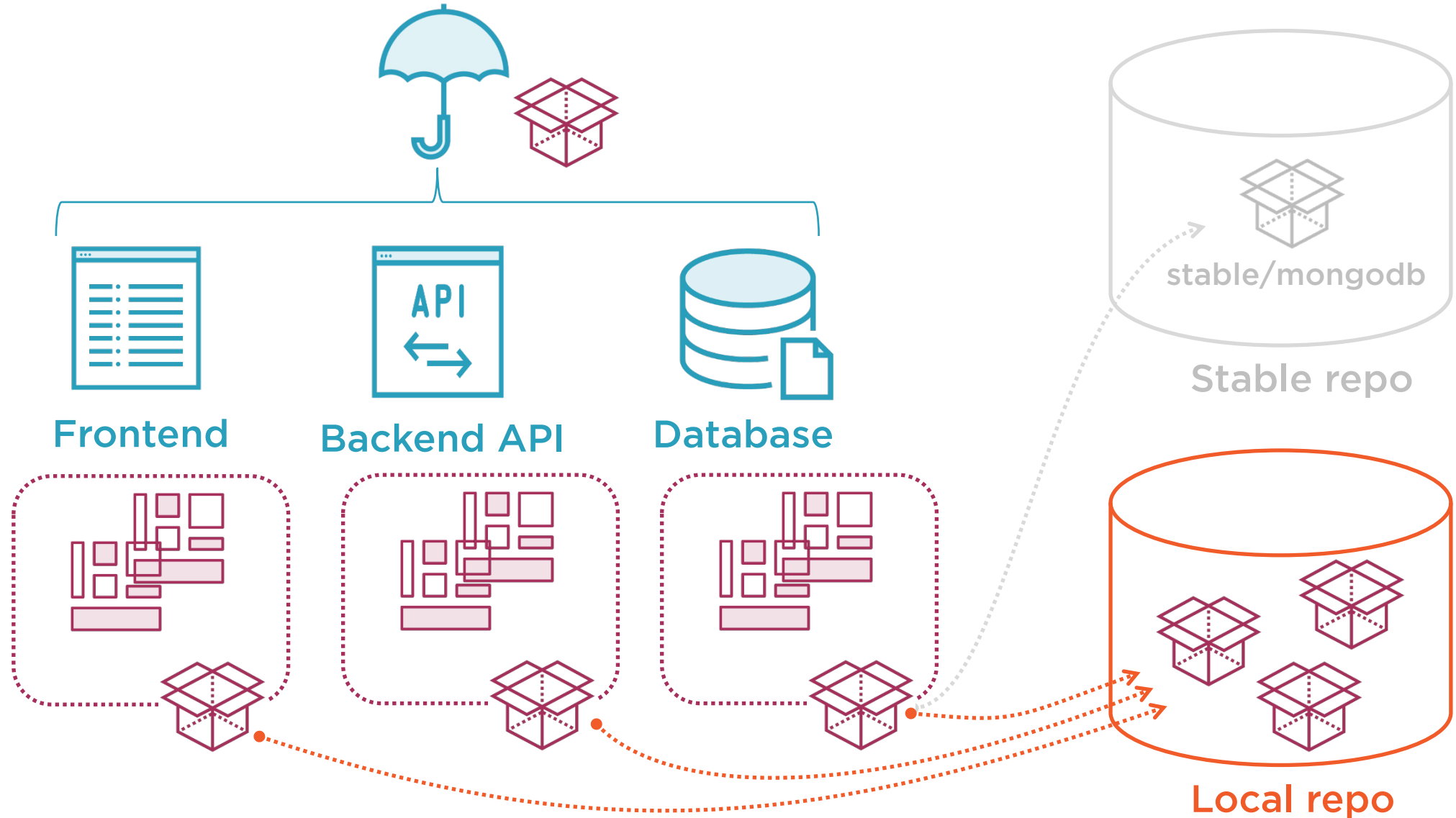
- Map values : child-parent

## Install stable/mongodb

## Install a Wordpress blog with Helm

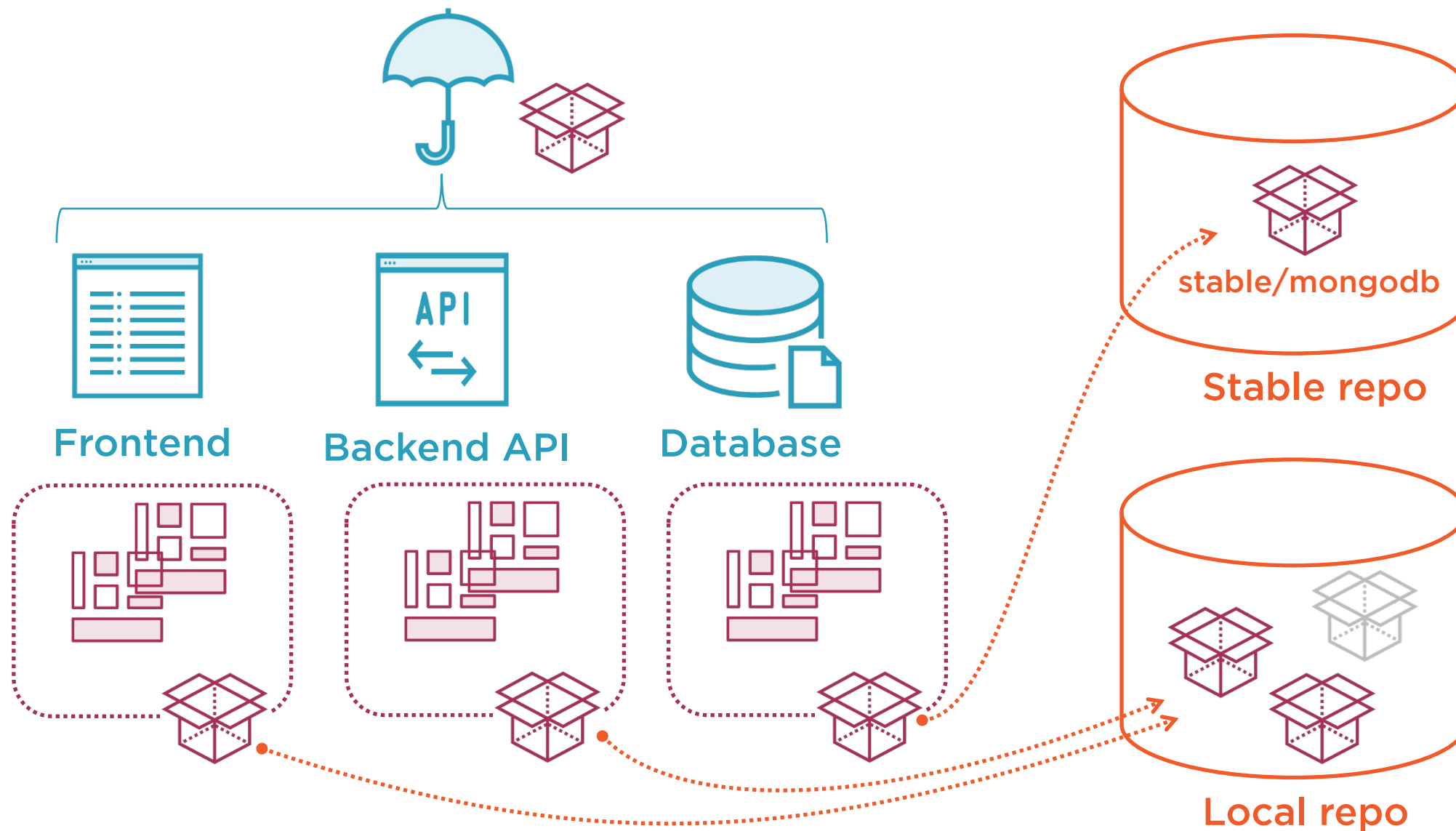


# Guestbook application

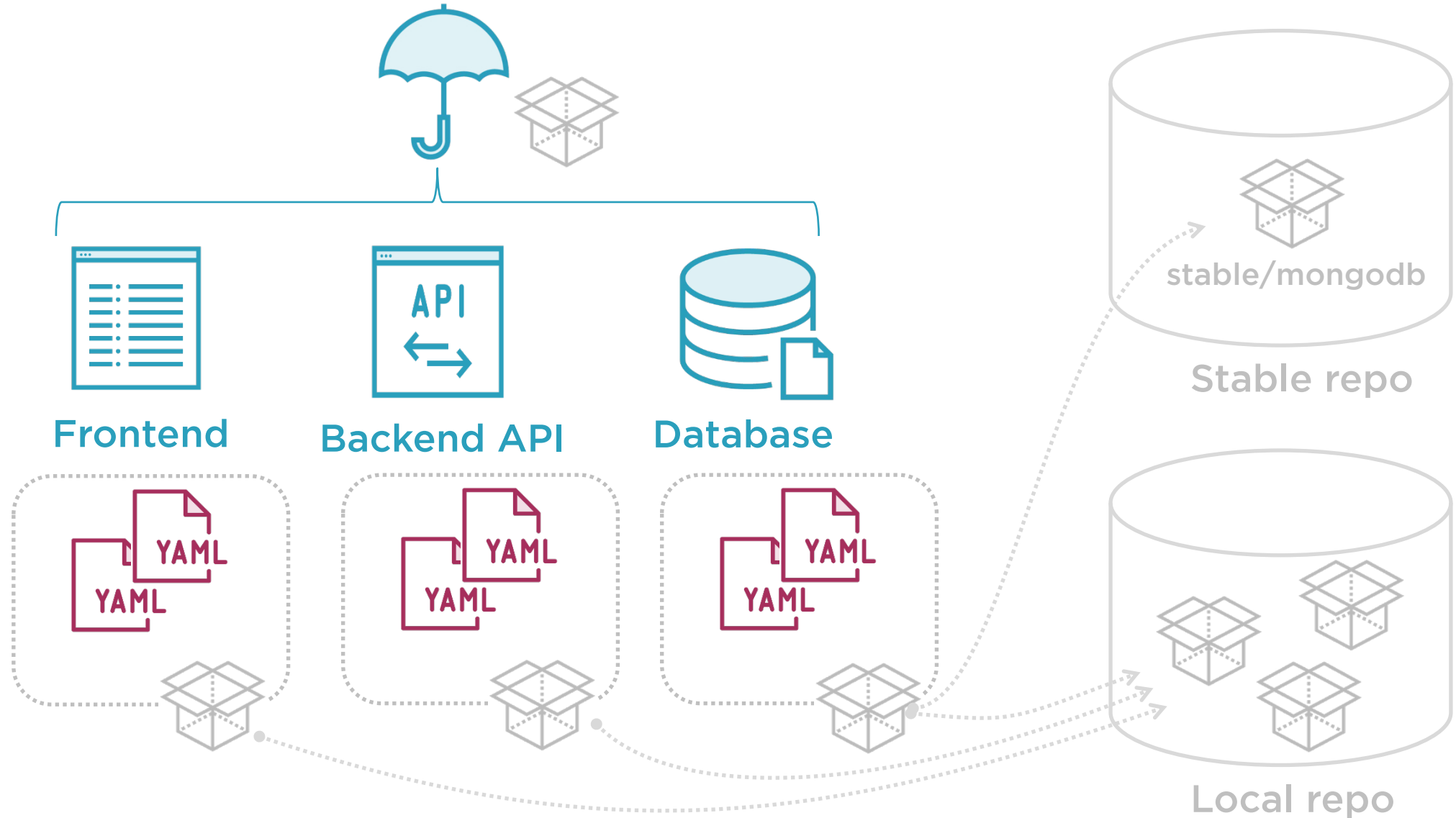




# Guestbook application



# Guestbook application



# Guestbook application

