Helmfile Declarative Helm releases

CONCEPTS

helmfile.yaml declares which Helm releases belong on a cluster; Helmfile makes the cluster match it.

helmfile.yaml desired state
↓ `template + values`
Helm releases charts + values
↓ `diff / apply / sync`
Cluster kube-context

apply runs diff first and syncs only when there are changes; sync always upgrades every selected release.

PROJECT

`helmfile` **`init`**
Check helm and install plugins

`helmfile` **`repos`**
Add the repositories from the file

`helmfile` **`deps`**
Update chart deps and lock files

`helmfile` **`list`**
List releases in the state file

`helmfile` **`lint`**
Run helm lint on the charts

DEPLOY

`helmfile` **`diff`**
Show pending changes

`helmfile` **`apply`**
Diff, then sync only if changed

`helmfile` **`apply -i`**
Confirm before changing the cluster

`helmfile` **`sync`**
Upgrade --install every release

`helmfile` **`template`**
Render manifests locally

`helmfile` **`destroy`**
Uninstall and purge releases

TARGETING

`helmfile` **`-f`** *`<file or dir>`* *`<cmd>`*
Use another helmfile or directory

`helmfile` **`-e`** *`<env>`* *`<cmd>`*
Choose environment (default: default)

`helmfile` **`-l name=`***`<release>`* *`<cmd>`*
Select one release

`helmfile` **`-l`**
`<key>=<val>,<key2>=<val2>` *`<cmd>`*
Labels must all match (AND)

`helmfile` **`-l`** *`<key>≠<val>`* *`<cmd>`*
Exclude by label

`helmfile` **`--kube-context`** *`<ctx>`*
`<cmd>`
Use a kubectl context

HELMFILE.YAML

Minimal file

```
repositories:
  - name: bitnami
    url: https://charts.bitnami.com/
bitnami
---
releases:
  - name: cache
    namespace: data
    chart: bitnami/redis
    version: <x.y.z>
    values:
      - values/redis.yaml
```

Environments

```
environments:
  default:
    values: [env/default.yaml]
  production:
    values: [env/production.yaml]
---
# in releases:
  installed: {{ eq .Environment.Name
"production" | toYaml }}
```

Dependencies and toggles

```
releases:
  - name: app
    chart: ./charts/app
    needs: [data/cache]
    condition: app.enabled
    labels: {tier: web}
```