



Jsonnet

Daniel Milde, Nov 2022





Managing kubernetes configuration

- What tools are available.
- What is Jsonnet.
- Demo!



Helm





Helm

- The package manager for kubernetes
- Uses Go templating engine



Helm templates

```
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: {{ include "hello-world.fullname" . }}
5    labels:
6      {{- include "hello-world.labels" . | nindent 4 }}
7  spec:
8    replicas: {{ .Values.replicaCount }}
9    selector:
10     matchLabels:
11       {{- include "hello-world.selectorLabels" . | nindent 6 }}
12  template:
13     metadata:
14       labels:
15         {{- include "hello-world.selectorLabels" . | nindent 8 }}
16     spec:
17       serviceAccountName: {{ include "hello-world.serviceAccountName" . }}
18       containers:
19         - name: {{ .Chart.Name }}
20           image: "{{ .Values.image.repository }}:{{ .Values.image.tag | default .Chart.AppVersion }}"
21           imagePullPolicy: {{ .Values.image.pullPolicy }}
```



Kustomize





Kustomize

- Kubernetes native configuration management
- Built into kubectl since 1.14
- Uses yaml patching



Kustomize

<> deployment.yaml

```
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: my-nginx
5  spec:
6    selector:
7      matchLabels:
8        run: my-nginx
9    replicas: 2
10   template:
11     metadata:
12       labels:
13         run: my-nginx
14     spec:
15       containers:
16       - name: my-nginx
17         image: nginx
18         ports:
19         - containerPort: 80
```

<> patch.yaml

```
1  - op: replace
2    path: /spec/replicas
3    value: 3
```

<> kustomization.yaml

```
1  resources:
2  - deployment.yaml
3
4  patchesJson6902:
5  - target:
6      group: apps
7      version: v1
8      kind: Deployment
9      name: my-nginx
10    path: patch.yaml
```




Jsonnet





Jsonnet

- A data templating language
- Superset of JSON inspired by Python



Demo time!



Jsonnet resources

- <https://jsonnet.org/learning/tutorial.html>
- <https://tanka.dev/tutorial/overview>



Thank you!

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We are hiring!

