

```
● ● ● deployment-prod-copy-final.yaml

apiVersion: apps/v1
kind: Deployment
metadata:
  name: account-service-prod-v3-FINAL
spec:
  replicas: 10 # was 3, changing to prod
  template:
    spec:
      containers:
        - image: account:v1.2.3-hotfix
          env:
            - name: DB_PASSWORD
              value: "password123" # TODO: fix
```

# Stop Hardcoding Your Kubernetes Environments.

Why you need Helm to manage deployments at scale. ↩

# The Copy-Paste Nightmare.

## dev.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: account-svc
spec:
  replicas: 1
  template:
    spec:
      containers:
        - image: app:dev
```

## staging.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: account-svc
spec:
  replicas: 3
  template:
    spec:
      containers:
        - image: app:rc1
```

## prod.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: account-svc
spec:
  replicas: 10
  template:
    spec:
      containers:
        - image: app:v1.2
```



Managing 50+ microservices with raw YAML is unscalable.



Hardcoding environment variables leads to human error.



Rollbacks are painful and completely manual.

# Helm: Dynamic Templating.



 **The Chart:** Your base skeleton — Deployment, Service, ConfigMap, Ingress.

 **The values.yaml:** Environment-specific variables injected at runtime.

 **Write the skeleton once.** Deploy it anywhere — dev, staging, prod.

# One Command. Total Control.

● ● ● Terminal – helm

```
# Deploy your entire stack  
$ helm upgrade --install my-app ./chart -f values-prod.yaml
```

✓ Release "my-app" upgraded. Revision: 4

```
# Something went wrong? Roll it back instantly.
```

```
$ helm rollback my-app 3
```

✓ Rollback success! Revision: 5 (rolled back to 3)

```
# Check release history
```

```
$ helm history my-app
```

REVISION	STATUS	DESCRIPTION
3	superseded	Upgrade complete
4	superseded	Upgrade complete
5	deployed	Rollback to 3



Helm bundles all resources into a single "Release."



Upgrading is one command: `helm upgrade my-app ./chart`



Botched a deploy? `helm rollback my-app 1` — instant recovery.

# The Ultimate Debate: Helm or Kustomize?



## Helm

Templating engine + package manager. Charts, values, releases.

vs



## Kustomize

Overlay-based patching. Native kubectl support. No templating.



Let me know your pick in the comments.