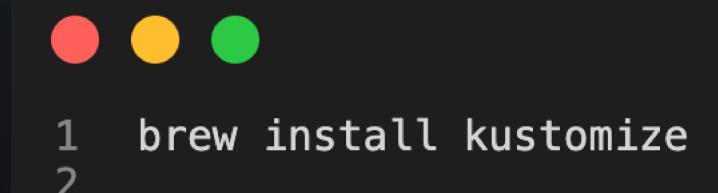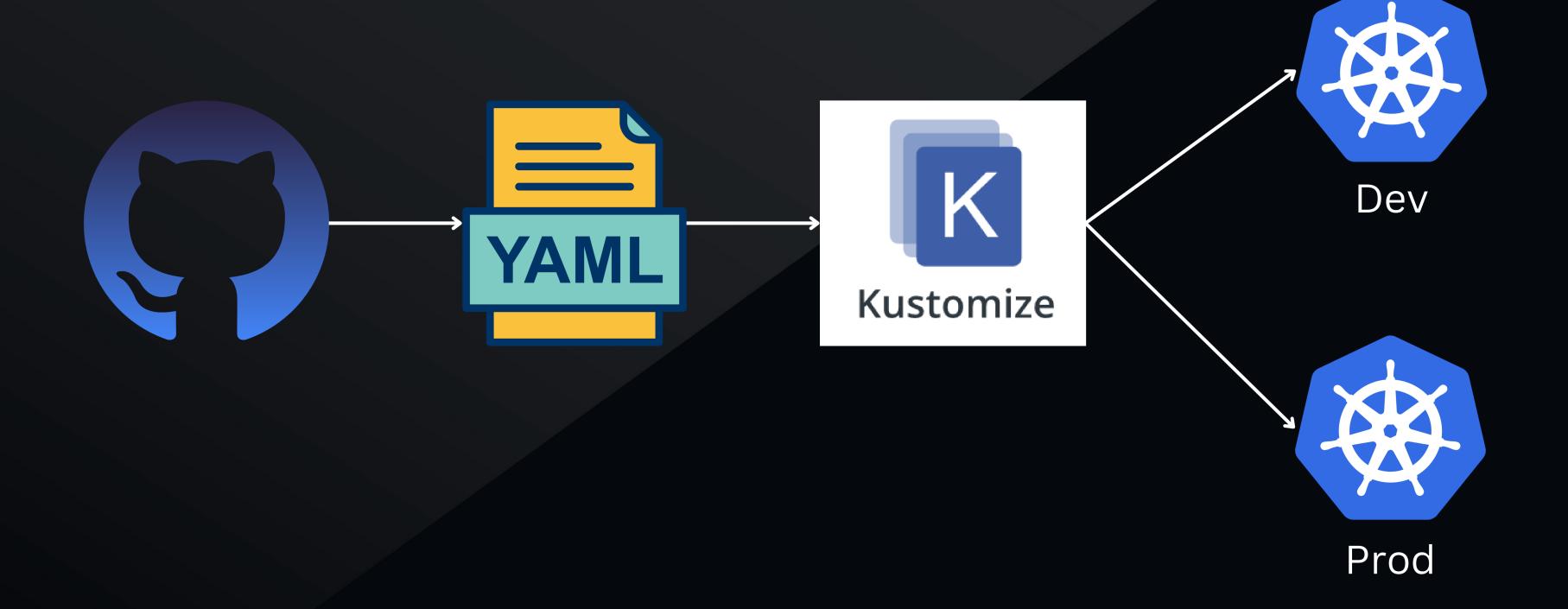# KUSTOMIZE

- **Kustomize is an open-source configuration management tool for Kubernetes**, designed to simplify the customization of Kubernetes applications. **It allows users to manage and modify Kubernetes manifests declaratively, without changing the original YAML files**. Kustomize uses a concept called "overlays" to apply changes, which can be a combination of patches, configMaps, or secrets.

- Kustomize helps manage complex deployments by enabling users to reuse and compose configurations, and it encourages a **clear separation of concerns between application developers and cluster operators**.
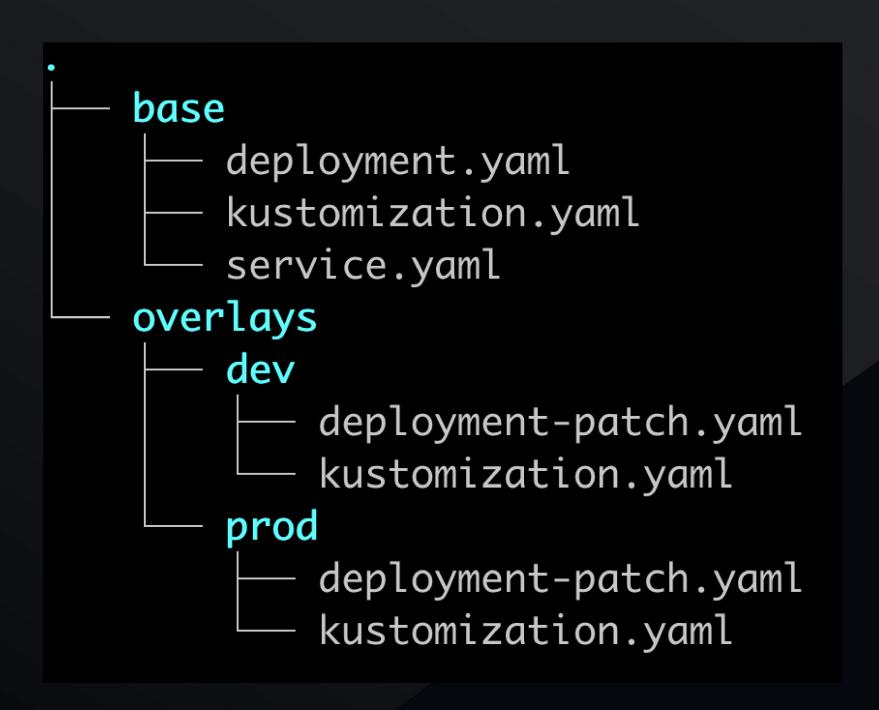
INSTALLATION

- Follow the doc
  - https://kubectl.docs.kubernetes.io/installation/kustomize/

```
1    brew install kustomize
2
```

HOW IT WORKS

DIRECTORY STRUCTURE

```
.
├── base
│   ├── deployment.yaml
│   ├── kustomization.yaml
│   └── service.yaml
└── overlays
    ├── dev
    │   ├── deployment-patch.yaml
    │   └── kustomization.yaml
    └── prod
        ├── deployment-patch.yaml
        └── kustomization.yaml
```

COMMAND

```
1   # check if kustomize syntax is valid
2   kustomize build overlays/prod
3
4   # apply k8s configuration with kustomize
5   kubectl apply –k overlays/prod
6
```

TIPS

- Keep the common values like namespace, common metadata in the base file
- Organize the resources by kind with the following naming convention: lowercase-hypenated.yaml
- Follow the best practice directory structure like base, overlays

HELPFUL
TIPS