

# Working with Pods

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# Overview



App Deployment Workflow

Creating a Pod Manifest (YAML)

Deploying a Pod

Multi-container Pod example

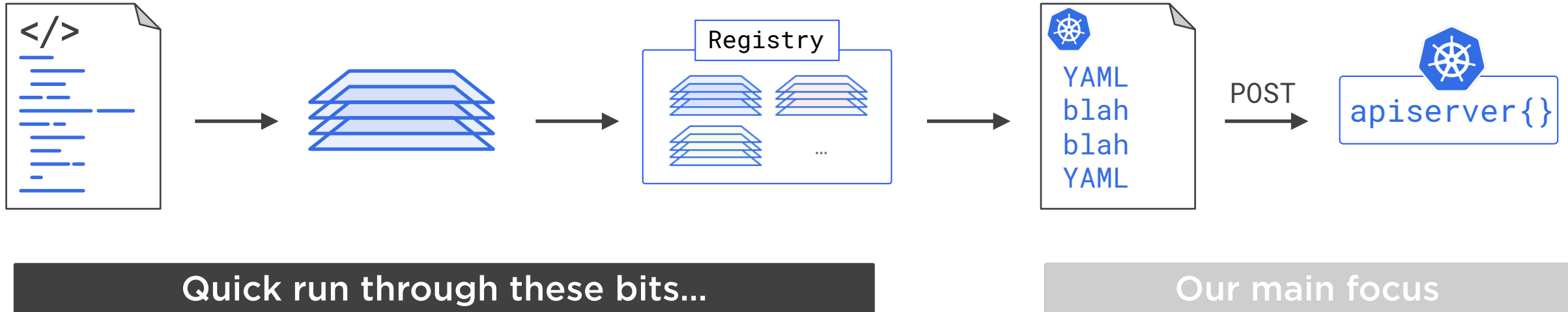
Recap



# App Deployment Workflow

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#### Course recommendations

##### Docker Deep Dive

By Nigel Poulton

Intermediate · ★★★★★ (529)

##### Getting Started with Docker

By Nigel Poulton

Beginner · ★★★★★ (1103)



## Getting Started with Docker

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Beginner · ★★★★★ (1103)

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## Docker Deep Dive

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Intermediate · ★★★★★ (529)



Up Next:  
Creating a Pod Manifest (YAML)

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# Creating a Pod Manifest (YAML)

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**Alpha**

v1alpha1  
v1alpha2





Alpha

v1alpha1

v1alpha2

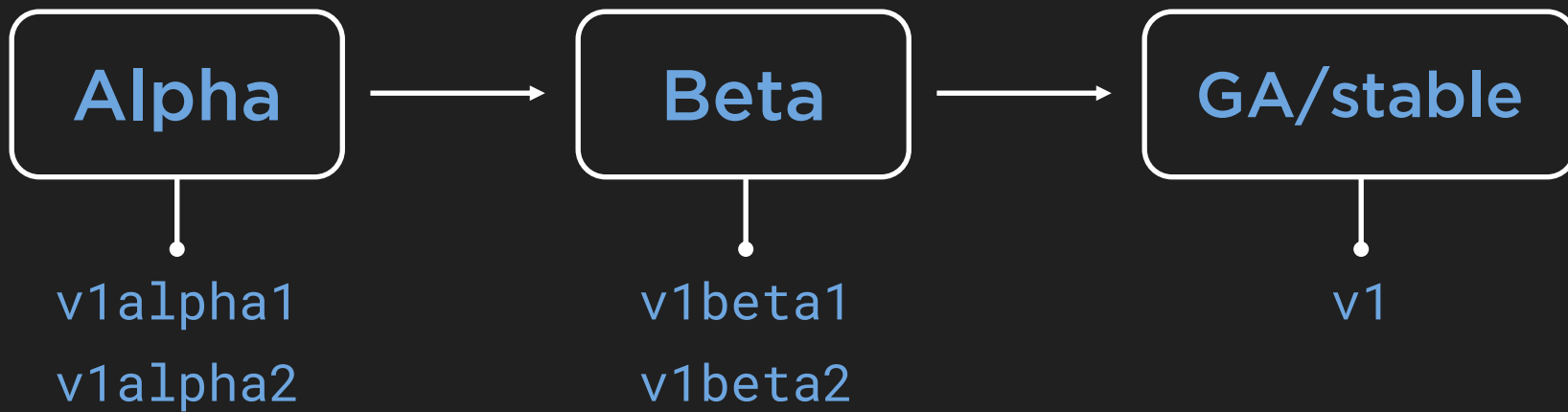


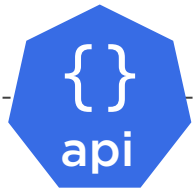
Alpha

v1alpha1

v1alpha2







API

apps



v1



v1



v1



v1

batch



v1



v1beta1

```
kind: Deployment  
apiVersion: apps/v1  
...
```

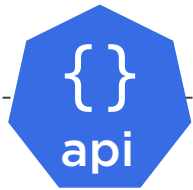
```
kind: DaemonSet  
apiVersion: apps/v1  
...
```

```
kind: ReplicaSet  
apiVersion: apps/v1  
...
```

```
kind: StatefulSet  
apiVersion: apps/v1  
...
```

apiserver{}





API

apps



v1



v1



v1



v1

batch



v1

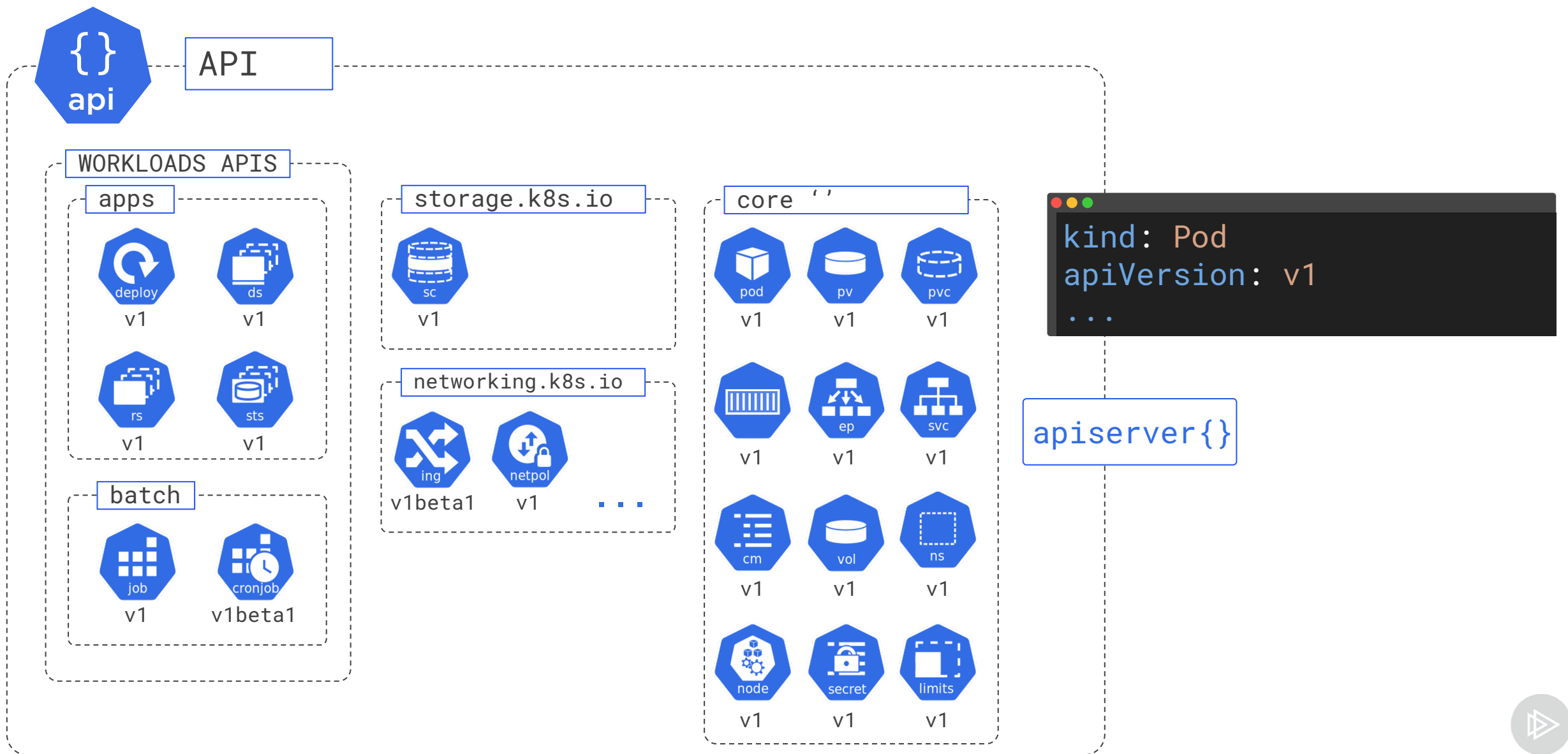


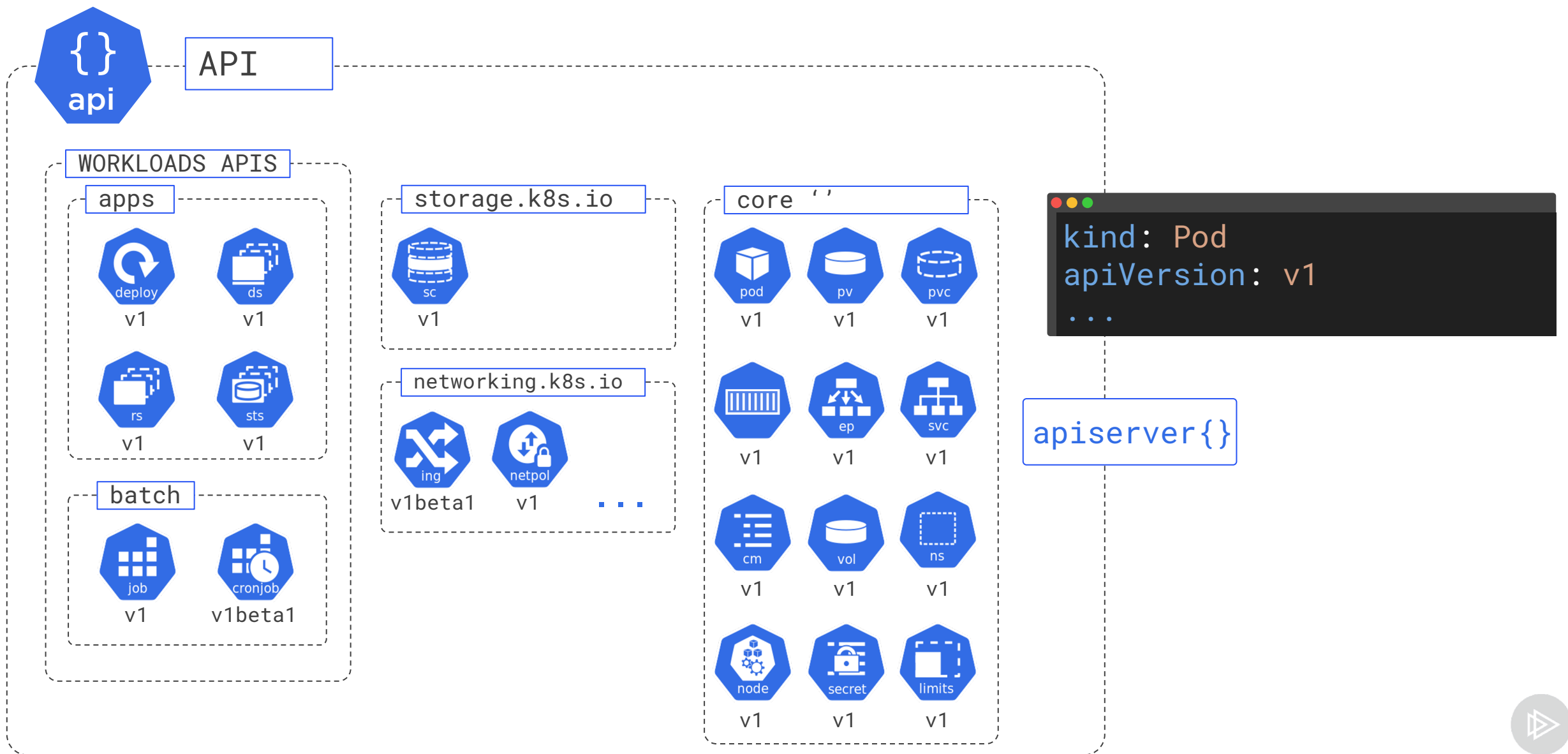
v1beta1

```
kind: CronJob
apiVersion: batch/v1beta1
...
```

apiserver{}









API



**Pod** object definition

- API sub-group: [core ""]
- metadata (ObjectMeta)
  - name (string)
  - annotations (object)
  - labels (object)
- spec (PodSpec)
  - nodeName (integer)
  - containers (container array)
    - name (string)
    - image (string)
    - imagePullPolicy (string)
    - ports (ContainerPort array)

apiserver{}







API



**Pod** object definition

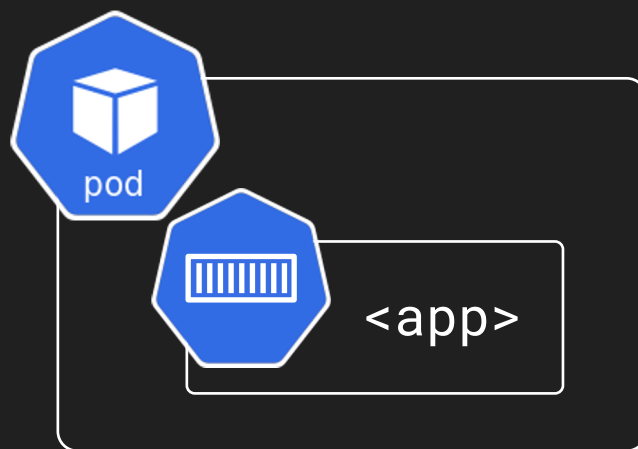
- API sub-group: [core ""]
- metadata (ObjectMeta)
  - name (string)
  - annotations (object)
  - labels (object)
- spec (PodSpec)
  - nodeName (integer)
  - containers (container array)
    - name (string)
    - image (string)
    - imagePullPolicy (string)
    - ports (ContainerPort array)
    - ...

## Pod manifest

```
kind: Pod
apiVersion: v1
matadata:
  name: test-pod
  labels:
    ver: 1.0
spec:
  containers:
  - name: main
    image: web-server:1.0
    imagePullPolicy: Always
    ports:
      containerPort: 8080
```

apiserver{}





Up Next:  
Deploying a Pod

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# Deploying a Pod

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# Up Next:

## Multi-container Pod Example

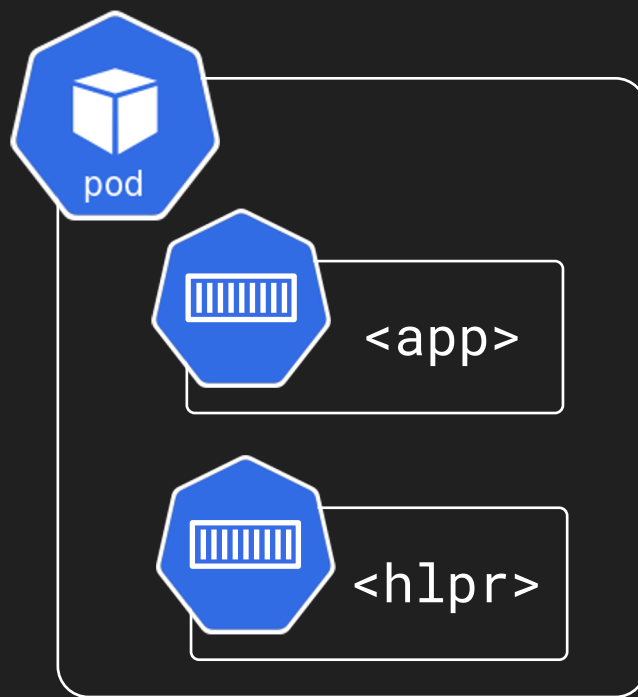
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# Multi-container Pod Example

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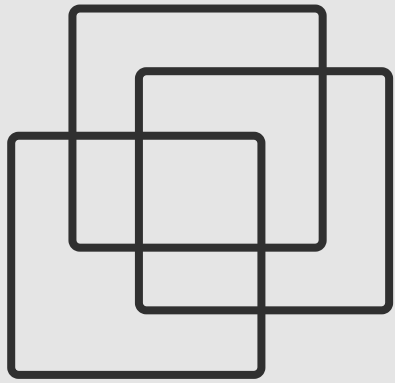


# Quick Recap

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Virtual Machine

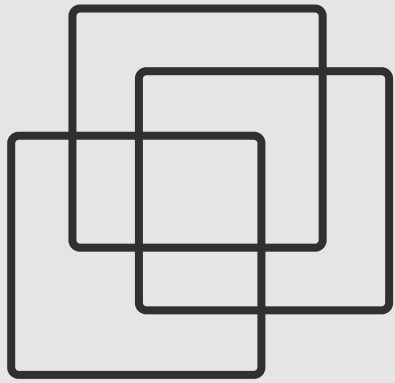


Container



Pod





Virtual Machine

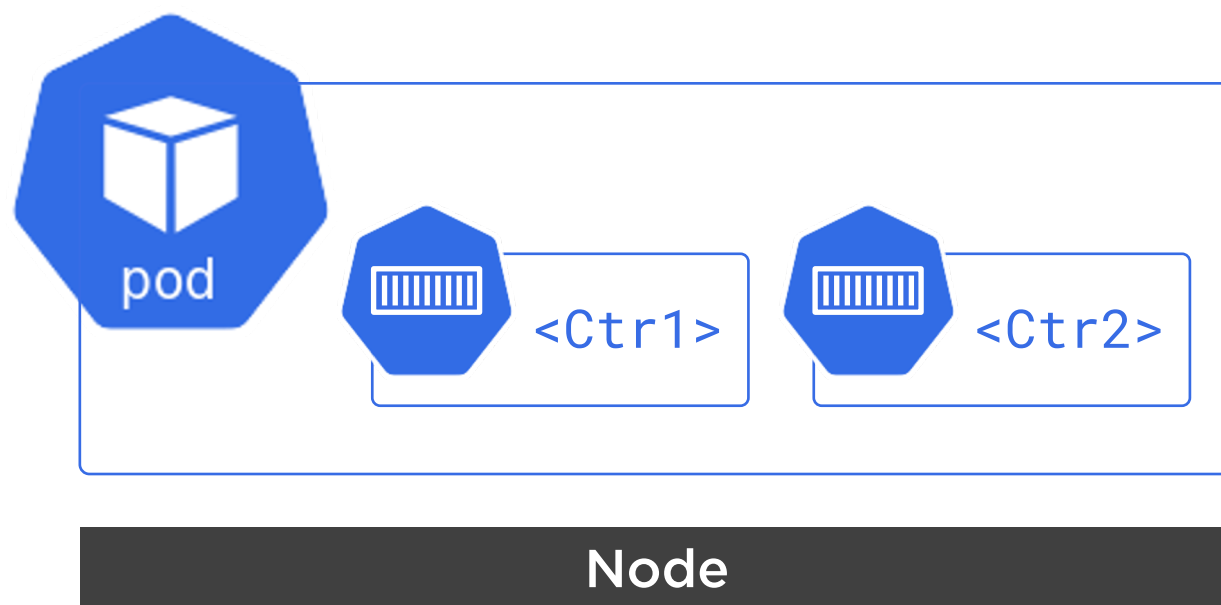


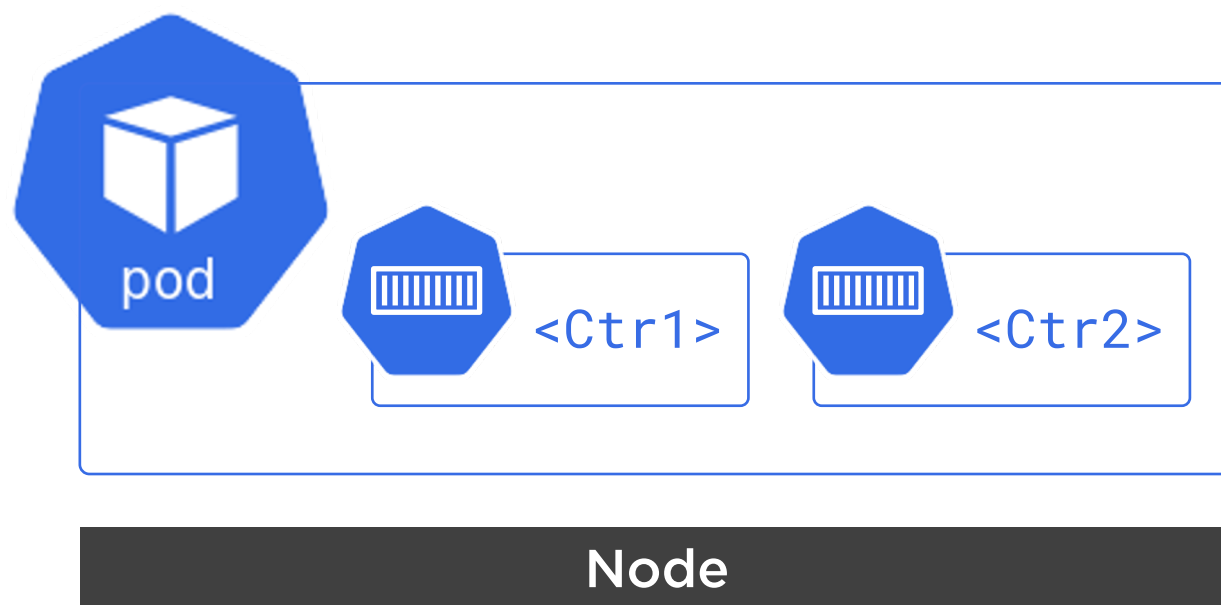
Container



Pod







```
kind: Pod
apiVersion: v1
matadata:
  name: test-pod
  labels:
    ver: 1.0
spec:
  containers:
  - name: main
    image: web-server:1.0
    imagePullPolicy: Always
    ports:
      containerPort: 8080
```

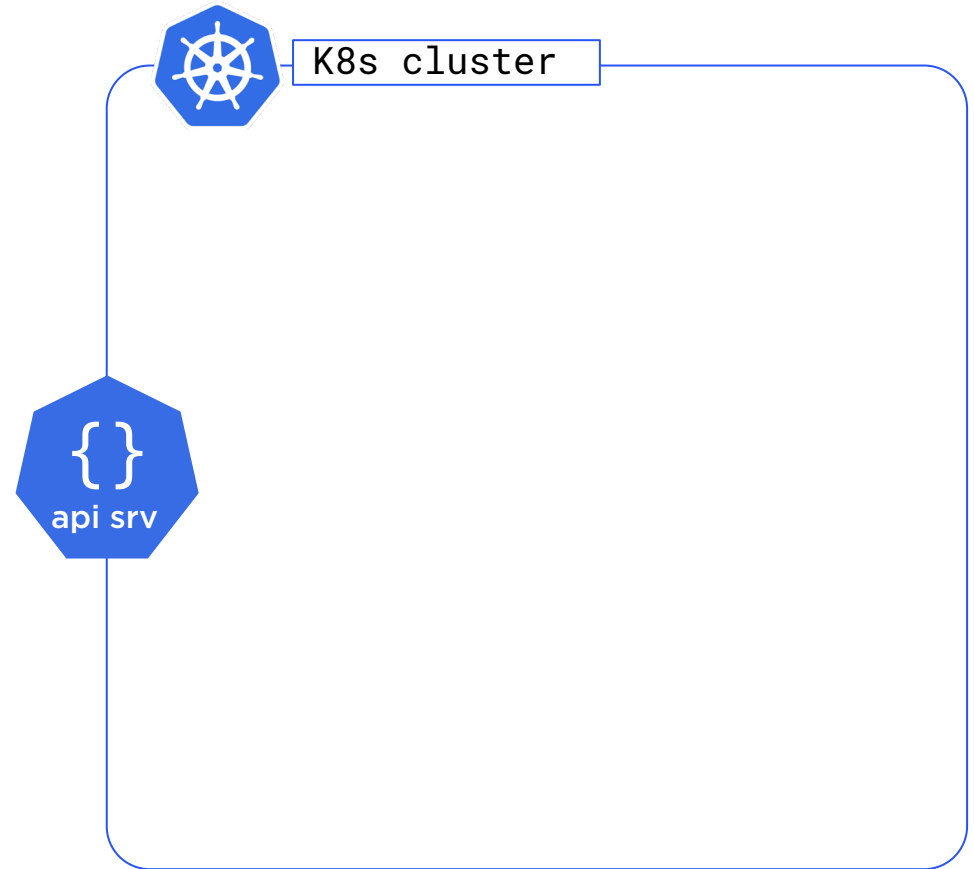


```
kind: Pod
apiVersion: v1
matadata:
  name: test-pod
  labels:
    ver: 1.0
spec:
  containers:
  - name: main
    image: web-server:1.0
    imagePullPolicy: Always
    ports:
      containerPort: 8080
```



```
kind: Pod
apiVersion: v1
metadata:
  name: test-pod
  labels:
    ver: 1.0
spec:
  containers:
  - name: main
    image: web-server:1.0
    imagePullPolicy: Always
    ports:
      containerPort: 8080
```

POST (HTTPS)



Up Next:

Kubernetes Networking with Services

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