

# Series of events

## Step 1 – Create your cluster

- Create `kind.yml`

```
kind: Cluster
apiVersion: kind.x-k8s.io/v1alpha4
nodes:
- role: control-plane
  extraPortMappings:
  - containerPort: 30007
    hostPort: 30007
- role: worker
  extraPortMappings:
  - containerPort: 30007
    hostPort: 30008
- role: worker
```



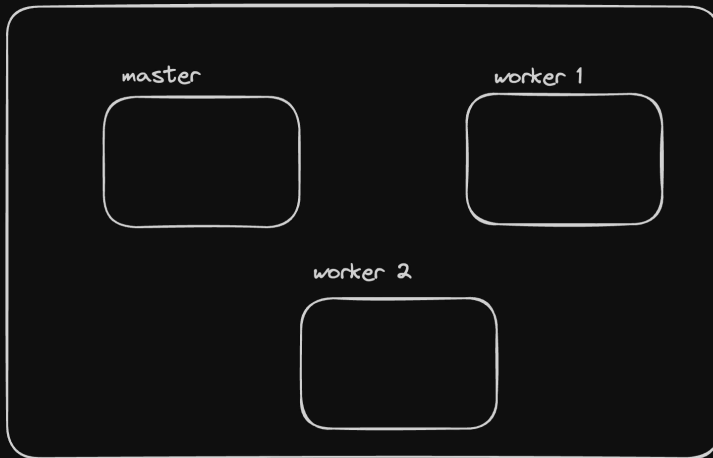
- Create cluster

```
kind create cluster --config kind.yml --name local
```



Step 1  
Creating a cluster  
Creating an image for your backend

hub.docker.com/images/nginx  
or  
hub.docker.com/images/fb\_backend



## Step 2 – Deploy your pod

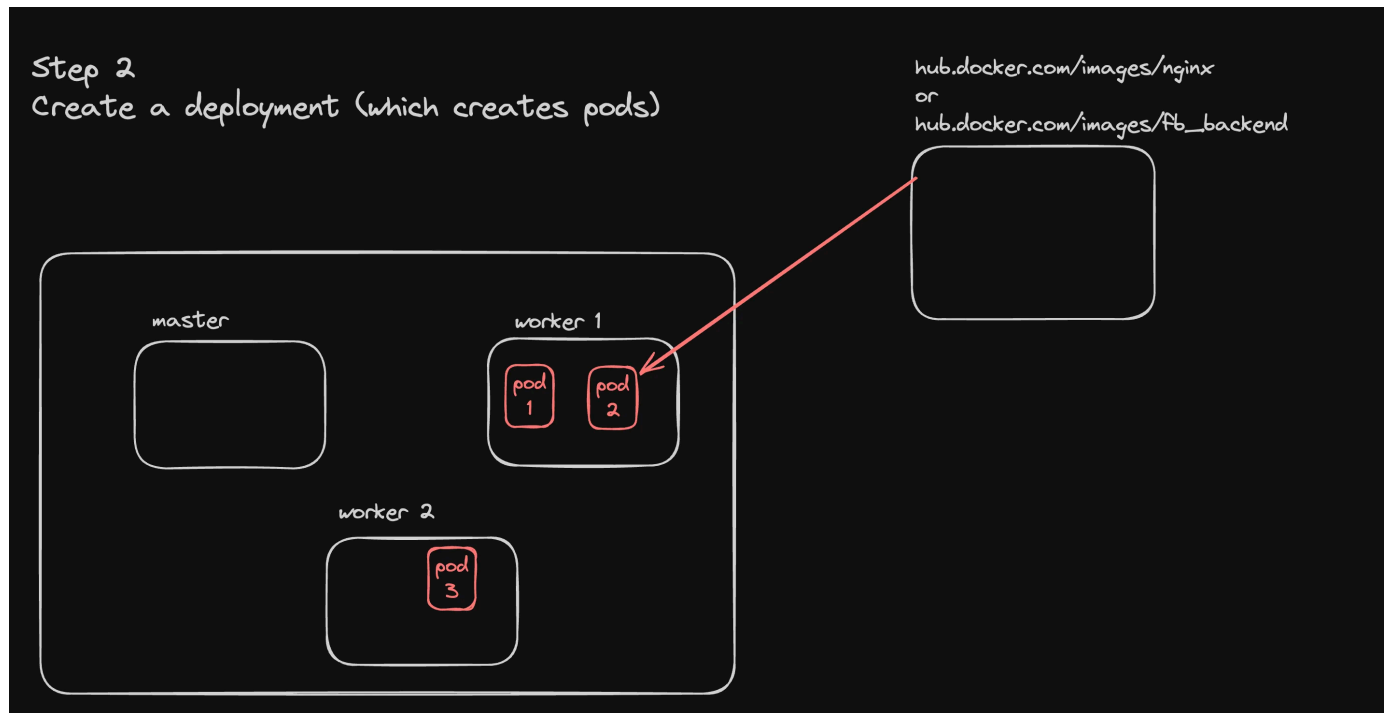
- Create `deployment.yml`

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: nginx:latest
          ports:
```



- Apply the deployment

```
kubectl apply -f deployment.yml
```



## Step 3 – Expose your app over a NodePort

- Create service.yml

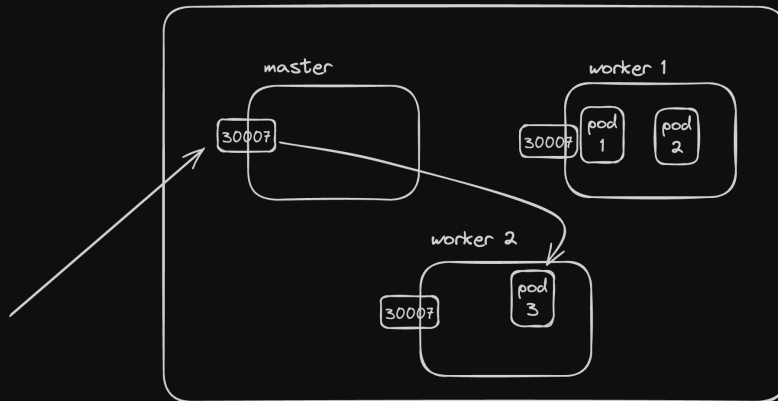
```
apiVersion: v1
kind: Service
metadata:
  name: nginx-service
spec:
  selector:
    app: nginx
  ports:
    - protocol: TCP
      port: 80
      targetPort: 80
      nodePort: 30007 # This port can be any valid port within the NodePort range
  type: NodePort
```



### Step 3

#### Expose a service over NodePort

hub.docker.com/images/nginx  
or  
hub.docker.com/images/fb\_backend



## Step 4 – Expose it over a LoadBalancer

- Create a load balancer service (service-lb.yml)

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-service
spec:
  selector:
    app: nginx
  ports:
    - protocol: TCP
      port: 80
      targetPort: 80
  type: LoadBalancer
```



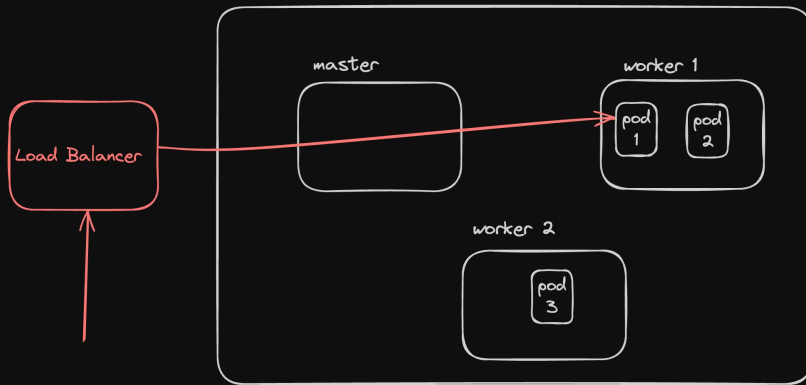
- Apply the configuration

```
kubectl apply service-lb.yml
```



### Step 4 Expose a service over a load balancer

hub.docker.com/images/nginx  
or  
hub.docker.com/images/ft\_backend



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### Load Balancers

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Name	Location	Charges	Status	
a1a84c241140c4db7a04d5e9f03015ea 5cb05774-53a1-4a06-9624-354178439317	Mumbai	\$0.02	Running	...

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