

X. Dev/Prod Parity with Namespaces

Relevant Documentation

- [Twelve-Factor App: X. Dev/Prod Parity](#)
- [Namespaces](#)

Lesson Reference

Switch to the source code directory:

```
cd ~/content-designing-applications-for-kubernetes
```

Optional: If you want to start with a clean slate, check out the start tag for this lesson. However, you could lose any local changes you have made if you do this:

```
git reset --hard HEAD
git checkout X-dev-prod-parity-start
```

Create a new namespace:

```
kubectl create namespace dev
```

Make a copy of the uloe app YAML:

```
cp uloe-app.yml uloe-app-dev.yml
```

Edit the `uloe-svc` service in the file to select different nodePorts. You will also need to edit the `uloe-config` ConfigMap to reflect the new port:

```
vi uloe-app-dev.yml
```

Set the nodePorts on the service:

```
apiVersion: v1
kind: Service
metadata:
  name: uloe-svc
spec:
  type: NodePort
  selector:
    app: uloe
  ports:
    - name: frontend
      protocol: TCP
      port: 30082
      nodePort: 30082
      targetPort: 5000
    - name: server
      protocol: TCP
      port: 30083
      nodePort: 30083
      targetPort: 3001
```

Update the configured port in the ConfigMap:

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: uloe-config
data:
  mongodb.host: "uloe-mongodb"
  mongodb.port: "27017"
  .env: |
    REACT_APP_API_PORT="30083"
```

Deploy the backing service setup in the new namespace:

```
kubectl apply -f k8s-uloe-mongodb.yml -n dev

kubectl apply -f uloe-mongodb.yml -n dev
```

Deploy the app in the new namespace:

```
kubectl apply -f uloe-app-dev.yml -n dev
```

Check the status of the Pods:

```
kubectl get pods -n dev
```

Once all the Pods are up and running, you should be able to test the `dev` environment in a browser at `<Control Plane Node Public IP>:30082`.