Kubernetes Orchestration in Docker

Docker Kubernetes Service combines the features of Docker swarm with the power and flexibility of Kubernetes. In this lesson, we will introduce the Docker Kubernetes Service. We will also explore what it looks like to run Kubernetes workloads in a Docker enterprise cluster.

Relevant Documentation

- Docker Kubernetes Service
- Accessing Kubernetes Resources

Lesson Reference

Access UCP in a browser at `https://<UCP server public IP>`.

Navigate to `Shared Resources` > `Nodes`, then select one of your UCP worker nodes.

Click the gear icon to edit the node.

Take note of the `Orchestrator Type` option, which allows you to change whether the node will run workloads for Docker Swarm, Kubernetes, or both.

Navigate to `Kubernetes` > `Namespaces`.

Click the `Create` button.

Create a new namespace:

```
apiVersion: v1
kind: Namespace
metadata:
  name: my-namespace
```

Click `Create` to create the Namespace. Your new Namespace will now appear in the Namespaces list.

Select `Set Context` for `my-namespace`.

Navigate to `Kubernetes` > `+ Create`.

Select the `my-namespace` Namespace from the dropdown.

Create a pod with the following yaml:

```
apiVersion: v1
kind: Pod
metadata:
  name: my-pod
spec:
  containers:
  - name: nginx
    image: nginx:1.19.1
    ports:
    - containerPort: 80
```

Click `Create` to create the pod. It should soon enter the `Ready` status.