Although namespaces are not on the objectives list for the CKAD exam, they play an important role in many of the tasks that the exam may cover. An understanding of namespaces is necessary in order to avoid confusion in many scenarios that may arise when working with Kubernetes. In this lesson, we will briefly discuss namespaces, how to assign objects to namespaces, and how to browse objects within namespaces.

Relevant Documentation

- https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/

Lesson Reference

You can get a list of the namespaces in the cluster like this:

```
kubectl get namespaces
```

You can also create your own namespaces.

```
kubectl create ns my-ns
```

To assign an object to a custom namespace, simply specify its `metadata.namespace` attribute.

```
apiVersion: v1
kind: Pod
metadata:
  name: my-ns-pod
  namespace: my-ns
  labels:
    app: myapp
spec:
  containers:
  - name: myapp-container
    image: busybox
    command: ['sh', '-c', 'echo Hello Kubernetes! && sleep 3600']
```

Create the pod with the created yaml file.

```
kubectl create -f my-ns.yml
```

Use the `-n` flag to specify a namespace when using commands like `kubectl get`.

```
kubectl get pods -n my-ns
```

You can also use `-n` to specify a namespace when using `kubectl describe`.

```
kubectl describe pod my-ns-pod -n my-ns
```