Exploring k8s Scheduling

Relevant Documentation

- Kubernetes Scheduler
- Assigning Pods to Nodes

Lesson Reference

Log in to the Control Plane node.

List your nodes.

```
kubectl get nodes
```

Add a label to one of your worker nodes.

```
kubectl label nodes <node name> special=true
```

Create a pod that uses a nodeSelector to filter which nodes it can run on using labels.

```
vi nodeselector-pod.yml
```

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: nodeselector-pod
spec:
  nodeSelector:
    special: "true"
  containers:
  - name: nginx
    image: nginx:1.19.1
```

```
kubectl create -f nodeselector-pod.yml
```

Check your Pod's status and verify that it has been scheduled on the correct node.

```
kubectl get pod nodeselector-pod -o wide
```

Create a pod that uses nodeName to bypass scheduling and run on a specific node.

```
vi nodename-pod.yml
```

```yaml
apiVersion: v1
kind: Pod
metadata:
```

```
    name: nodename-pod
spec:
  nodeName: <node name>
  containers:
  - name: nginx
    image: nginx:1.19.1
```

```
kubectl create -f nodename-pod.yml
```

Check your Pod's status and verify that it is on the correct node.

```
kubectl get pod nodename-pod -o wide
```