Building Self-Healing Pods with Restart Policies

Relevant Documentation

- Restart Policy

Lesson Reference

Create a pod with the `Always` restart policy that completes after a few seconds.

```
vi always-pod.yml
```

```
apiVersion: v1
kind: Pod
metadata:
  name: always-pod
spec:
  restartPolicy: Always
  containers:
  - name: busybox
    image: busybox
    command: ['sh', '-c', 'sleep 10']
```

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

Check the pod status. You should see it restarting after every 10-second completion.

```
kubectl get pod always-pod
```

Create a pod with the `OnFailure` restart policy.

```
vi onfailure-pod.yml
```

```
apiVersion: v1
kind: Pod
metadata:
  name: onfailure-pod
spec:
  restartPolicy: OnFailure
  containers:
  - name: busybox
    image: busybox
    command: ['sh', '-c', 'sleep 10']
```

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

Check the pod status. Note that the pod does not restart because it completed successfully.

```
kubectl get pod onfailure-pod
```

Delete, modify, and recreate the pod so that it fails.

```
vi onfailure-pod.yml
```

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: onfailure-pod
spec:
  restartPolicy: OnFailure
  containers:
  - name: busybox
    image: busybox
    command: ['sh', '-c', 'sleep 10; this is a bad command that will fail']
```

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

Check the pod status. Note that the pod restarts because it exited with an error code.

```
kubectl get pod onfailure-pod
```

Create a pod with the `Never` restart policy that completes after a few seconds.

```
vi never-pod.yml
```

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: never-pod
spec:
  restartPolicy: Never
  containers:
  - name: busybox
    image: busybox
    command: ['sh', '-c', 'sleep 10; this is a bad command that will fail']
```

```
kubectl create -f never-pod.yml
```

Check the pod status. You should see that it does not restart after completing.

```
kubectl get pod never-pod
```