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MANAGING STATE WITH DEPLOYMENTS

# Managing State with Deployments

## Scaling and Rolling Updates

The API server allows for the configurations settings to be updated for most values. There are some immutable values, which may be different depending on the version of Kubernetes you have deployed.

A common update is to change the number of replicas running. If this number is set to zero, there would be no containers, but there would still be a ReplicaSet and Deployment. This is the backend process when a Deployment is deleted. See the commands and outputs presented below:

```
$ kubectl scale deploy/dev-web --replicas=4

deployment "dev-web" scaled

$ kubectl get deployments

NAME       READY    UP-TO-DATE    AVAILABLE    AGE
dev-web    4/4      4             4            20s
```

Non-immutable values can be edited via a text editor, as well. Use edit to trigger an update. For example, to change the deployed version of the nginx web server to an older version run this command (followed by the output):

```
$ kubectl edit deployment dev-web

....
    containers:
    - image: nginx:1.8 #<<---Set to an older version
      imagePullPolicy: IfNotPresent
     name: dev-web
....
```

This would trigger a rolling update of the deployment. While the deployment would show an older age, a review of the Pods would show a recent update and older version of the web server application deployed.