Deploy in Kubernetes cluster

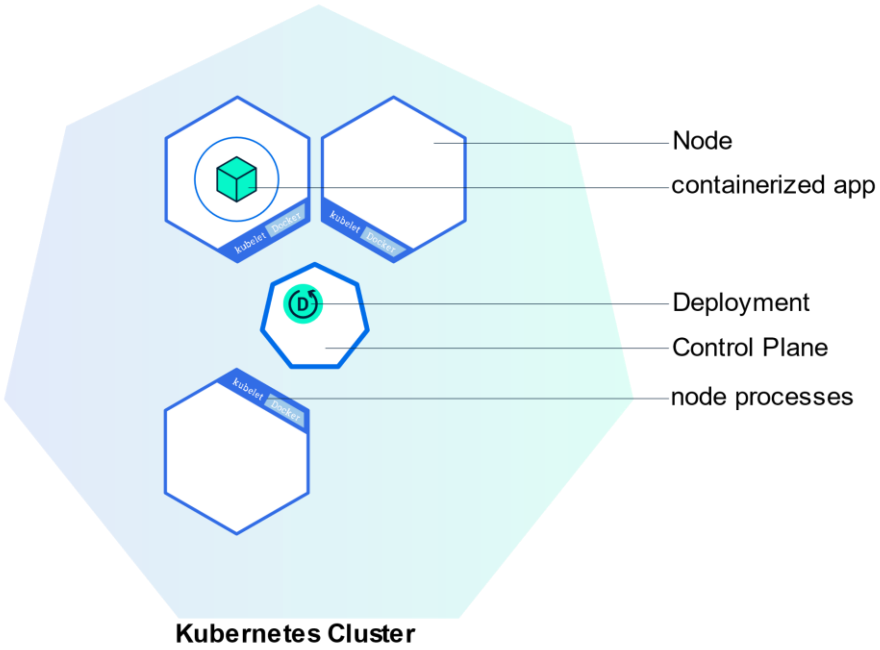
Once you have a running Kubernetes cluster, you can deploy your containerized applications on top of it.

To do so, you create a Kubernetes Deployment configuration.

The Deployment instructs Kubernetes how to create and update instances of your application.

Once you've created a Deployment, the Kubernetes control plane schedules the application instances included in that Deployment to run on individual Nodes in the cluster.

Deploying your first app on Kubernetes:



Deployments:

A *Deployment* provides declarative updates for Pods and Replica Sets.

You describe a *desired state* in a Deployment.

Deployment Controller changes the actual state to the desired state at a controlled rate.

You can define Deployments to create new Replica Sets, or to remove existing Deployments and adopt all their resources with new Deployments.

Use Case:

The following are typical use cases for Deployments:

- Create a Deployment to rollout a Replica Set. The Replica Set creates Pods in the background. Check the status of the rollout to see if it succeeds or not.
- Rollback to an earlier Deployment revision if the current state of the Deployment is not stable. Each rollback updates the revision of the Deployment.
- Scale up the Deployment to facilitate more load.
- Pause the rollout of a Deployment to apply multiple fixes to its Pod Template Spec and then resume it to start a new rollout.
- Use the status of the Deployment as an indicator that a rollout has stuck.
- Clean up older Replica Sets that you don't need anymore.