

```
controlplane $ kubectl get namespace
```

NAME	STATUS	AGE
default	Active	8d
kube-node-lease	Active	8d
kube-public	Active	8d
kube-system	Active	8d

```
controlplane $ kubectl get pod -n kube-system
```

NAME	READY	STATUS	RESTARTS	AGE
calico-kube-controllers-5f94594857-5n2vd	1/1	Running	1	8d
canal-svgnr	2/2	Running	0	32m
coredns-68dc769db8-7c8m4	1/1	Running	0	8d
coredns-68dc769db8-sht7c	1/1	Running	0	8d
etcd-controlplane	1/1	Running	0	8d
kube-apiserver-controlplane	1/1	Running	1	8d
kube-controller-manager-controlplane	1/1	Running	2 (22m ago)	8d
kube-proxy-pml4f	1/1	Running	0	8d
kube-scheduler-controlplane	1/1	Running	2 (22m ago)	8d

```
controlplane $ kubectl get pod --namespace=kube-system
```

NAME	READY	STATUS	RESTARTS	AGE
calico-kube-controllers-5f94594857-5n2vd	1/1	Running	1	8d
canal-svgnr	2/2	Running	0	33m
coredns-68dc769db8-7c8m4	1/1	Running	0	8d
coredns-68dc769db8-sht7c	1/1	Running	0	8d
etcd-controlplane	1/1	Running	0	8d
kube-apiserver-controlplane	1/1	Running	1	8d
kube-controller-manager-controlplane	1/1	Running	2 (23m ago)	8d
kube-proxy-pml4f	1/1	Running	0	8d
kube-scheduler-controlplane	1/1	Running	2 (23m ago)	8d

```
controlplane $
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```
controlplane $ cat deploy.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: deployment-1
  labels:
    app: nginx
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - name: nginx-1
        image: nginx
        tty: true
```

```
controlplane $ kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
deployment-1  3/3     3            3           57s
controlplane $
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```
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Available      True      MinimumReplicasAvailable
Progressing    True      NewReplicaSetAvailable
oldReplicaSets: <none>
NewReplicaSet: deployment-1-6bdc68686f (3/3 replicas created)
Events:
  Type    Reason             Age    From                      Message
  ----    -
  Normal  ScalingReplicaSet  2m17s  deployment-controller     Scaled up replica set deployment-1-75f5fdf88 to 3
  Normal  ScalingReplicaSet  39s    deployment-controller     Scaled up replica set deployment-1-6dc68686f to 1
  Normal  ScalingReplicaSet  33s    deployment-controller     Scaled down replica set deployment-1-745f5fdf88 to 2 from 3
  Normal  ScalingReplicaSet  33s    deployment-controller     Scaled up replica set deployment-1-6dc68686f to 2 from 1
  Normal  ScalingReplicaSet  31s    deployment-controller     Scaled down replica set deployment-1-745f5fdf88 to 1 from 2
  Normal  ScalingReplicaSet  31s    deployment-controller     Scaled up replica set deployment-1-6dc68686f to 3 from 2
  Normal  ScalingReplicaSet  29s    deployment-controller     Scaled down replica set deployment-1-745f5fdf88 to 0 from 1
controlplane $
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```

    app: busybox
spec:
  replicas: 3
  selector:
    matchLabels:
      app: busybox
  template:
    metadata:
      labels:
        app: busybox
    spec:
      containers:
      - name: busybox-1
        image: nginx
controlplane $ kubectl apply -f deploy.yaml
deployment.apps/deployment-1 configured
controlplane $ kubectl describe deployment deployment-1
Name:                deployment-1
Namespace:            default
CreationTimestamp:    Mon, 06 Feb 2023 00:03:57 +0000
Labels:               app=busybox
Annotations:          deployment.kubernetes.io/revision: 2
Selector:             app=busybox
Replicas:             3 desired | 3 updated | 3 total | 3 available | 0 unavailable
StrategyType:         RollingUpdate
MinReadySeconds:      0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=busybox
  Containers:

```

```

Normal ScalingReplicaSet 2/3 deployment-controller Scaled down
745f5fdf88 to 0 from 1
controlplane $ kubectl rollout undo deployment deployment-1
deployment.apps/deployment-1 rolled back
controlplane $

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```

controlplane $ kubectl rollout undo deployment deployment-1
deployment.apps/deployment-1 rolled back
controlplane $ kubectl get deployment
NAME                READY    UP-TO-DATE    AVAILABLE    AGE
deployment-1        3/3      3             3            6m15s
controlplane $
controlplane $ kubectl get deployment deployment-1
NAME                READY    UP-TO-DATE    AVAILABLE    AGE
deployment-1        3/3      3             3            8m13s

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```
apiVersion: v1
kind: Namespace
metadata:
  name: dev
  labels:
    name: dev
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Terminal 0 X

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: dev-deploy
  labels:
    app: redis
spec:
  replicas: 2
  selector:
    matchLabels:
      app: redis
  template:
    metadata:
      namespace: dev
      labels:
        app: redis
    spec:
      containers:
      - name: redis
        image: redis
        resources:
          requests:
            cpu: "1"
            memory: "1Gi"
          limits:
            cpu: "5"
            memory: "2Gi"
```

controlplane \$ █

```
controlplane $ kubectl apply -f ns.yaml
namespace/dev created
controlplane $ kubectl apply -f dev.yaml
deployment.apps/dev-deploy created
controlplane $ █
```