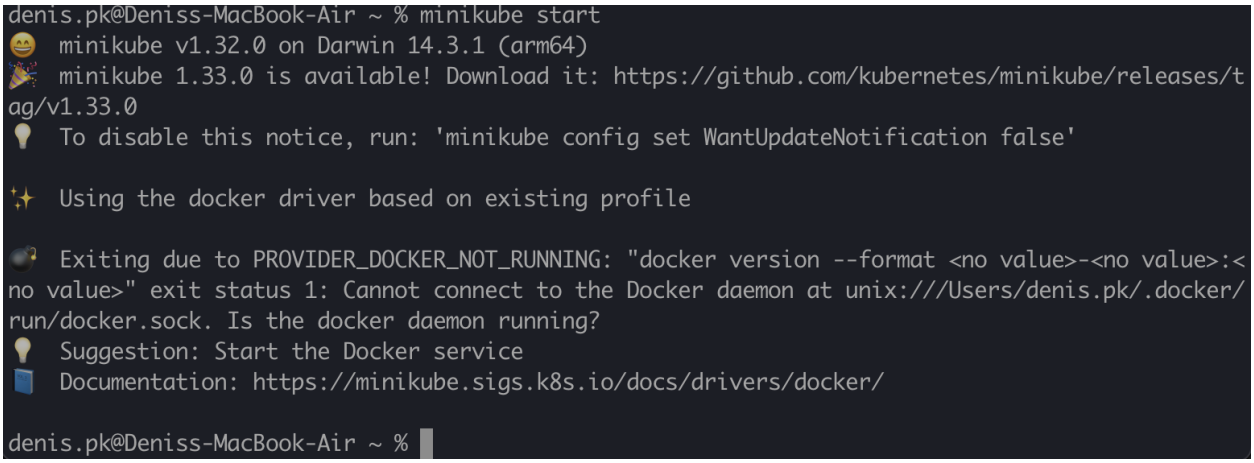
Kubernetes Lab

Create a Cluster

Here we are starting Kubernetes on our machine. Before running any commands we need to ensure that our docker application is running first. Then we can run the following command:

```
minikube start
```



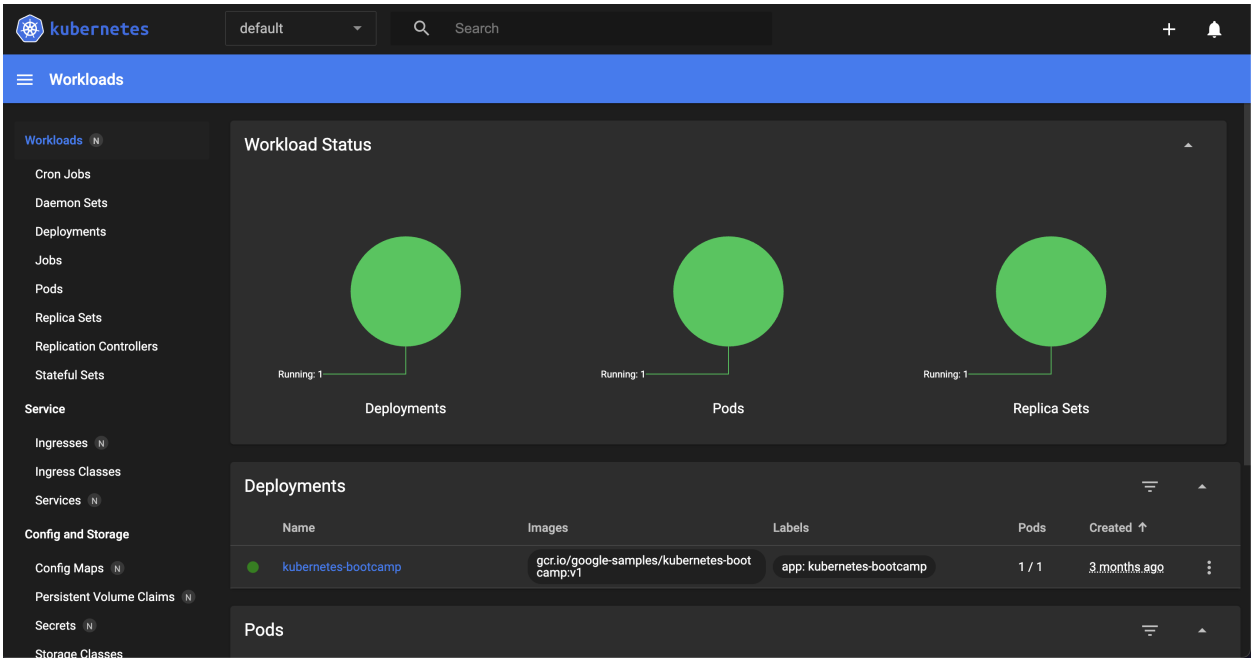
In a separate tab we will run the following command to start the minikube dashboard

```
minikube dashboard
```

```
🔌  Enabling dashboard ...
    ▪ Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
    ▪ Using image docker.io/kubernetesui/dashboard:v2.7.0
💡  Some dashboard features require the metrics-server addon. To enable all features please run:

        minikube addons enable metrics-server

🤔  Verifying dashboard health ...
🚀  Launching proxy ...
🤔  Verifying proxy health ...
🎉  Opening http://127.0.0.1:50070/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```



Deploy an App

When we run the following command, we are creating our deployment cluster:

```
kubectl create deployment hello-node --image=registry.k8s.io/e2e
```

```
denis.pk@Deniss-MacBook-Air ~ % kubectl create deployment hello-node --image=
registry.k8s.io/e2e-test-images/agnhost:2.39 -- /agnhost netexec --http-port=
8080

deployment.apps/hello-node created
```

In order to view our deployment, we can run the following command:

```
kubectl get deployments
```

```
denis.pk@Deniss-MacBook-Air ~ % kubectl get deployments
NAME                    READY   UP-TO-DATE   AVAILABLE   AGE
hello-node              1/1     1            1           75s
```

To view our pod we can run the following command:

```
kubectl get pods
```

```
denis.pk@Deniss-MacBook-Air ~ % kubectl get pods
NAME                                READY   STATUS    RESTARTS      AGE
hello-node-ccf4b9788-hw9q9          1/1     Running   0             6m23s
```

Running the following command shows us the application logs for a container in a pod:

```
kubectl logs hello-node-ccf4b9788-hw9q9
```

```
denis.pk@Deniss-MacBook-Air ~ % kubectl logs hello-node-ccf4b9788-hw9q9
I0509 16:35:46.004764       1 log.go:195] Started HTTP server on port 8080
I0509 16:35:46.005378       1 log.go:195] Started UDP server on port  8081
```

Explore Your App

Expose Your App Publicly

Scale Your App

Update Your App