#### Install Minikube

You need to follow [these steps](https://github.com/kubernetes/minikube) to get Minikube in your computer which is straightforward. Once you start the cluster you should get the below output

Minikube start –vm-driver=virtualbox

#### Verify Minikube

Minikube status

The above command will allow you to get the status of the Minikube cluster. You should get the below output if the command is successful.

Now, let’s try to connect to our Minikube from kubectl.

Kubectl get nodes

#### Minikube/Kubernetes Dashboard

There is a web based dashboard that works along with the Kubernetes environment. To access the Kubernetes Dashboard, lets run this command.

Minikube dashboard

As you can see there are no deployments right now.

#### Running a Container

For example, let’s run a Nginx container to see this in action. Run the command as shown below.

kubectl run dh-nginx --image=nginx --port=80

Now, if you go to the deployment section of the Dashboard (what we accessed earlier), you should be able to see your new deployment.

Let’s type the below command to check the status of our deployment.

Kubectl get pods

 you type the above command right-after the previous command, you might get the STATUS as ContainerCreating. Give it some time to run the process! Further, if you go to the dashboard now, the deployment will get listed and the status will be shown as in-progress. You can also notice that the Pods value is 0/1.

Let’s deep dive into our pod to get some more information. Type the below command. Don’t forget to change the podname!

kubectl describe pod dh-nginx-3830712953-ld3g9

#### Expose Pod as a Service

Let’s try to understand why services are important in Kubernetes by reading the 1st few paragraphs of [this article](https://kubernetes.io/docs/concepts/services-networking/service/).

Type the command shown below.

kubectl expose deployment dh-nginx --type=NodePort

If you re-visit the Dashboard and go to the Services section, you can see the dh–nginx service entry. Check the below (see the top row).

kubectl get service

Let’s see the Nginx running now.

minikube service dh-nginx

If you are a command line fan, type below command to get the logs. Don’t forget to change the podname accordingly.

kubectl logs dh-nginx-3830712953-ld3g9

#### Scaling the Service

This is the most interesting part of Kubernetes. At the deployment, we didn’t mention the number of instances for our service. So we just had one Pod that was provisioned on the single node. Let’s try to scale. The current deployment status is as below.

kubectl get deployment

kubectl scale --replicas=3 deployment/dh-nginx

You can check the current status of the deployment now.

Kubectl get deployment

You can scale down similarly. Type the below command to scale down the service.

kubectl scale --replicas=2 deployment/dh-nginx