

Create a Cluster


This lesson focuses on creating a cluster and the necessary requirements and gists for this chapter.

WE'LL COVER THE FOLLOWING ^

- Pulling the code
 - Additional necessary things
- Gists and specifications

Pulling the code

We'll continue using definitions from the [vfarcic/k8s-specs](#) repository. To be on the safe side, we'll pull the latest version first.

 All the commands from this chapter are available in the [03-monitor.sh](#) Gist.

```
cd k8s-specs
```

```
git pull
```

Additional necessary things

In this chapter, we'll need a few things that were not requirements before, even though you have probably already used them.

We'll start using UIs so we'll need **NGINX Ingress Controller** that will route traffic from outside the cluster. We'll also need the environment variable **LB_IP** with the IP through which we can access worker nodes. We'll use it to configure a few Ingress resources.

Gists and specifications

Choose the flavor you want and run the commands from its `.sh` file to create the cluster and the required specifications needed in this chapter. Due to new requirements (Ingress and `LB_IP`), all the cluster setup **Gists** are new.

NOTE: In the end, you will see a command to `DELETE` the cluster too. Don't execute that command. Use the `DELETE` command only when you need to delete the cluster, preferably at the end of the chapter.

A note to Docker for Desktop users

🔍 You'll notice `LB_IP=[...]` command at the end of the Gist. You'll have to replace `[...]` with the IP of your cluster. Probably the easiest way to find it is through the `ifconfig` command. Just remember that it cannot be `localhost`, but the IP of your laptop (e.g., `192.168.0.152`).

A note to minikube and Docker for Desktop users

🔍 We have to increase memory to 3GB. Please have that in mind in case you were planning only to skim through the **Gist** that matches your Kubernetes flavor.

GKE

- [gke-monitor.sh](#): **GKE** with 3 n1-standard-1 worker nodes, **nginx** **Ingress**, and cluster IP stored in environment variable `LB_IP`



EKS

- [eks-monitor.sh](#): **EKS** with 3 t2.small worker nodes, **nginx**

Ingress, Metrics Server, and

cluster IP stored in environment variable **LB_IP**



AKS

- [aks-monitor.sh](#): **AKS** with 3 Standard_B2s worker nodes, **nginx Ingress**, and cluster IP stored in environment variable **LB_IP**



Docker for Desktop

- [docker-monitor.sh](#): **Docker for Desktop** with 2 CPUs, 3 GB RAM, **nginx Ingress**, **Metrics Server**, and cluster IP stored in environment variable **LB_IP**

Minikube

- [minikube-monitor.sh](#): **minikube** with 2 CPUs, 3 GB RAM, **ingress**, **storage-provisioner**, **default-storageclass**, and **metrics-server** addons enabled, and cluster IP stored in environment variable **LB_IP**



Now that we have a cluster, we'll choose the tools we'll use to accomplish our

goals, in the next lesson.