

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
- Gists and specifications

Pulling the code

The [vfarctic/k8s-specs](#) repository will continue being our source of Kubernetes definitions we'll use for our examples. We'll make sure that it is up-to-date by pulling the latest version.

 All the commands from this chapter are available in the [04-instrument.sh](#) Gist. Just as in the previous chapter, it contains not only the commands but also **Prometheus' expressions**. If you're planning to copy&paste the expressions from the Gist, please exclude the comments. Each expression has a **# Prometheus expression** comment on top to help you identify it.

```
cd k8s-specs
```

```
git pull
```

Given that we learned how to install a fully operational **Prometheus** and the rest of the tools from its Chart, and that we'll continue using them, I moved it to the **Gists**. Those that follow are copies of those we used in the previous chapter, with the addition of environment variables **PROM_ADDR** and **AM_ADDRS** and the steps for the installation of the **Prometheus Chart**. Please create a cluster that meets (or exceeds) the requirements specified in the **Gists**

that follow, unless you already have a cluster that satisfies them.

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.

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.

GKE

- [gke-instrument.sh](#): **GKE** with 3 n1-standard-1 worker nodes, **nginx Ingress**, **Prometheus Chart**, and environment variables **LB_IP**, **PROM_ADDR**, and ***AM_ADDR**



EKS

- [eks-instrument.sh](#): **EKS** with 3 t2.small worker nodes, **nginx Ingress**, **Metrics Server**, **Prometheus Chart**, and environment variables **LB_IP**, **PROM_ADDR**, and **AM_ADDR**

AKS

- [aks-instrument.sh](#): **AKS** with 3 Standard_B2s worker nodes, **nginx Ingress** and **Prometheus Chart**, and environment variables **LB_IP**, **PROM_ADDR**,



and AM_ADDR



Docker for Desktop

- [docker-instrument.sh](https://github.com/docker-instrument/sh): **Docker for Desktop** with 2 CPUs, 3 GB RAM, **nginx Ingress**, **Metrics Server**, **Prometheus Chart**, and environment variables **LB_IP**, **PROM_ADDR**, and **AM_ADDR**

Minikube

- [minikube-instrument.sh](https://github.com/minikube-instrument/sh): **minikube** with 2 CPUs, 3 GB RAM, **ingress**, **storage-provisioner**, **default-storageclass**, and **metrics-server** addons enabled, **Prometheus Chart**, and environment variables **LB_IP**, **PROM_ADDR**, and **AM_ADDR**



minikube

In the next lesson, we will face our first simulated issue that might require debugging.