

Running Minikube on AWS EC2

An easy deployment guide

What is Minikube?

Minikube is a lightweight Kubernetes (K8) installation, which can create a Virtual Machine (VM) on your local machine or in a cloud instance, which deploys a simple cluster containing only one node.



If you want to explore Kubernetes (K8) in detail and if you do not want to waste your owe laptop space for that, installing it on a public cloud instance could be always an easy way out.

If you have an AWS account and if you want to try out some K8 features, this article will help you to get started.

Step 1: Create an AWS EC2 instance with Ubuntu 22

Create an EC2 instance with Ubuntu 22.04 (the latest for the moment) operating system.

Instance Size: t2.large with 2 CPUs, 32 GB Storage







Step 2: Install Docker

You may use the following link [2] to install Docker on the Ubuntu EC2 instance created under Step 1.

How To Install and Use Docker on Ubuntu 22.04 | DigitalOcean

Docker is an application that simplifies the process of managing application processes in containers. Containers let...

www.digitalocean.com

Step 3: Install Kubectl

<u>Kubectl</u> is a utility to manage a K8 cluster. Hence it is required to install it before you configure / install the K8 cluster.

Once the Docker installation is completed, use the following link [3] to install Kubectl on it.

Install and Set Up kubectl on Linux

Before you begin You must use a kubectl version that is within one minor version difference of your cluster. For...

kubernetes.io

Step 4: Install Minikube

Once both Docker and Kubectl are installed, you may use following set of commands to install Minikube.

\$ curl -LO <u>https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64</u> \$ sudo install minikube-linux-amd64 /usr/local/bin/minikube

You may get the assistance of the small wizard (Figure 01), shown on the web page link [4] to get the exact command 24 2 2



Figure 01

Thats it!. If all okay, you should be able to start Minikube without any issue.

Step 5: Start Minikube

Use the following command to start Minikube

\$ minikube start

```
ubuntu@ip-172-31-18-120: $ minikube start

in minikube v1.27.1 on Ubuntu 22.04 (xen/amd64)

in Using the docker driver based on existing profile

in Starting control plane node minikube in cluster minikube

in Pulling base image ...

in Restarting existing docker container for "minikube" ...

in Preparing Kubernetes v1.25.2 on Docker 20.10.18 ...

in Verifying Kubernetes components...

in Using image gcr.io/k8s-minikube/storage-provisioner:v5

in Enabled addons: default-storageclass, storage-provisioner

in Done! kubectl is now configured to use "minikube" cluster and "default" name space by default

ubuntu@ip-172-31-18-120: $ □
```

Figure 02 — Strarting Minikube

If all good, you will see a set of messages appear on the console (Figure 02).

Finally you may check the status of the installation with the following command. (Figure 03)

\$ minikube status

ubuntu@ip-172-31-18-120:~\$ minikube status minikube

type: Control Plane

host: Running kubelet: Running apiserver: Running kubeconfig: Configured

Figure 03 — Checking the Minikube installation status

So now you are all set to explore Kubernetes world. All the very best!

References

- 1. Minikube: https://minikube.sigs.k8s.io/docs/
- 2. Installing Docker on Ubuntu 22.04:
 https://www.digitalocean.com/community/tutorials/how-to-install-and-use-docker-on-ubuntu-22-04
- 3. Installing Kubectl on Linux: https://kubernetes.io/docs/tasks/tools/install-kubectl-linux/
- 4. Installing Minikube: https://minikube.sigs.k8s.io/docs/start/

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