



Create an RKE Configuration File

Lab 2



What are you Learning?

In this lab you will create a Rancher Kubernetes Engine (RKE) configuration file with the `rke config` command.

Why is it important?

The RKE configuration file is your Kubernetes cluster represented as Infrastructure as Code (IaC) with [YAML](#). You may use this file to support continuous delivery of changes to your Kubernetes cluster with practices like [GitOps](#). Furthermore, as your needs change and grow, this configuration file allows you to declaratively change the structure and functionality of your Kubernetes cluster.

Use `rke config` to Create a Configuration File

You'll use this configuration file in Lab 3 to create a single node Kubernetes Cluster. Provision a single virtual machine from a cloud provider or internal on-premises lab environment. Don't use an ephemeral environment like an [EC2 spot instance](#) as you will need this environment for future labs.

1. [Use `rke config` to create a RKE configuration file](#).
 - a. Use the [--version flag to create a config file to a version of Kubernetes](#), that is not the latest. We'll upgrade it in Lab 4.
2. Configure it according to your desired [configuration options](#).
3. When this is completed you should have a [cluster.yaml](#) file.

Testing That It Works

1. You will use this configuration file in Lab 3 to create an RKE Cluster. Your cluster configuration will vary based on the options you selected. See the [Example Cluster YAMLS](#) page for an example.

References

- The Official YAML Website - <https://yaml.org/>
- The GitOps Kubernetes Connection - <https://rancher.com/blog/2020/gitops-kubernetes-connection>
- Spot Instances - <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-spot-instances.html>
- Kubernetes Configuration Options - <https://rancher.com/docs/rke/latest/en/config-options/>
- Creating the Cluster Configuration File - <https://rancher.com/docs/rke/latest/en/installation/#creating-the-cluster-configuration-file>

- Listing Supported Kubernetes Versions - <https://rancher.com/docs/rke/latest/en/upgrades/#listing-supported-kubernetes-versions>
- Example Cluster YAMLs - <https://rancher.com/docs/rke/latest/en/example-yamls/>