Step 1: Install Kubectl

1. root@ubuntu-host ~ on ☁️ odl_user_1031426@cloudlabsgcporg8.com(us-west1) ✖
   sudo apt-get install kubectl
   You can install kubectl using the Google Cloud CLI or an external package manager such as apt or yum. We used apt-get to install kubectl

   gcloud components install kubectl

   sudo apt-get install kubectl

2. Verify that `kubectl` is installed
   a. kubectl version

Step 2: Verify installation of required plugins

Before you begin, check whether the plugin is already installed:

gke-gcloud-auth-plugin --version

If the output displays version information, skip this section.

1. gcloud components install gke-gcloud-auth-plugin
2. gke-gcloud-auth-plugin --version

Step 3: generate a kubeconfig context for a specific cluster and to use the plugin:

1. gcloud container clusters get-credentials *CLUSTER_NAME* --region=*COMPUTE_REGION*
   - Replace the following:
     i. *`CLUSTER_NAME`*: the name of your cluster.
     ii. *`COMPUTE_REGION`*: the Compute Engine region for your cluster. For zonal clusters, use `--zone=`*`COMPUTE_ZONE`*.

gcloud container clusters get-credentials gke-deep-dive --zone us-west1-a

Step 4: Verify the configuration:

2. kubectl get namespaces
    - The output is similar to the following:

      NAME STATUS AGE
      default Active 51d
      kube-node-lease Active 51d
      kube-public Active 51d
      kube-system Active 51d

Step 5: View Kubeconfig

kubectl config view

Step 6: Install a test app:

kubectl run my-app --image `gcr.io/cloud-marketplace/google/nginx1:latest` --cluster <Cluster-Name>

Step 7: Verify the app by listing pods:

Kubectl get pods