KUBERNETES INSTALLATION AND APPLICATION DEPLOYMENT

The goal is to install kubernetes in the local environment and configure the master and worker nodes on this kubernetes cluster. Post the successful installation of the cluster deploys a simple application with replicas and exposes the node.

PLAYBOOKS DESCRIPTION:

There are two main playbooks as part of this repository. First playbook is the kube\_install.yaml file. This playbook will invoke 2 roles that is the k8s\_master and k8s\_worker. The k8s\_master role will install docker, kubernetes, configure the network and make necessary changes to the required files and bring up the master node. Also it will be generate the token which is required to join the master and worker nodes. During execution, a prompt will be provided to take note of the token and provide it as input before executing the worker node.

**Command:**

ansible-playbook kube\_install.yaml -vvv

The application\_deploy.yaml is the manifest file to deploy the application in the worker node. This playbook will pull the vad1mo/hello-world-rest and create a deployment in the cluster with 3 replicas. The node will have the simple application hello-world-test running in port 31000.

**Command:**

kubectl apply -f application\_deploy.yaml