**1. Create the content directory to serve static images**

minikube ssh.

In your shell, create a /mnt/appdata/content directory:

sudo mkdir -p “/mnt/appdata/content”

In the /mnt/appdata/content directory, copy a jpeg file.

**2. Create a Persistent Volume**

vi pv-volume.yaml, create the below file in the current path and save it.

apiVersion: v1

kind: PersistentVolume

metadata:

name: task-pv-volume

labels:

type: local

spec:

storageClassName: manual

capacity:

storage: 10Gi

accessModes:

- ReadWriteOnce

hostPath:

path: "/mnt/appdata/content "

**Create the PV:**

kubectl apply -f pv-volume.yaml

**List the PV:**

kubectl get pv task-pv-volume

**3. Create a Persistent Volume Claim**

vi pv-claim.yaml, create the below file in the current path and save it.

apiVersion: v1

kind: PersistentVolumeClaim

metadata:

name: task-pv-claim

spec:

storageClassName: manual

accessModes:

- ReadWriteOnce

resources:

requests:

storage: 3Gi

**Create the PersistentVolumeClaim:**

kubectl apply -f pv-claim.yaml

**List the PersistentVolume:**

kubectl get pv task-pv-volume

**4. Create an Application and Service**

vi pv-pod.yaml, create the below file in the current path and save it.

kind: Pod

apiVersion: v1

metadata:

name: static-pod

labels:

app: static

spec:

volumes:

- name: task-pv-storage

persistentVolumeClaim:

claimName: task-pv-claim

containers:

- name: static-container

image: nginx

ports:

- containerPort: 80

name: "http-server"

volumeMounts:

- mountPath: "/usr/share/nginx/html"

name: task-pv-storage

---

kind: Service

apiVersion: v1

metadata:

name: static-service

spec:

selector:

app: static

ports:

- port: 5678 # Default port for image

**Install Ingress:**

1. Start by creating the “mandatory” resources for Nginx Ingress in your cluster.

kubectl apply -f https://raw.githubusercontent.com/kubernetes/ingress-nginx/master/deploy/static/mandatory.yaml

1. Then, enable the ingress add-on for Minikube.

minikube addons enable ingress

1. Or, if you’re using Docker for Mac to run Kubernetes instead of Minikube.

kubectl apply -f https://raw.githubusercontent.com/kubernetes/ingress-nginx/master/deploy/static/provider/cloud-generic.yaml

1. Check that it’s all set up correctly.

kubectl get pods --all-namespaces -n app=ingress-nginx

This has set up the Nginx Ingress Controller. Now, we can create Ingress resources in our Kubernetes cluster and route external requests to our services.

I am working on the service creation part now.