You can create persistent volumes that deploy EBS volumes attached to hosts and mounted inside pods. The EBS volumes are provisioned dynamically such they are created, attached, destroyed along with the lifecycle of the persistent volumes.

Exploring the available Storage Class

$ kubectl get sc

NAME	PROVISIONER	AGE
default	kubernetes.io/aws-ebs	19h
gp2 (default)	kubernetes.io/aws-ebs	19h
standard	kubernetes.io/aws-ebs	12h

Creating a Persistent Volume Claim

$ vim <your-name>-persistentvolumeclaim.yaml
Paste the below content and update the <your-name>-persistentvolumeclaim with your name.

$ curl -k https://pastebin.com/raw/7mseZ7KX > <your-name>-persistentvolumeclaim.yaml

$ kubectl create -f <your-name>-persistentvolumeclaim.yaml

Deploying a Persistent Volume

$ vim <your-name>-deployment.yaml
Paste the below content and update all the <your-name> fields with your name.

$ curl -k https://pastebin.com/raw/yrbvxBP4 **>** <your-name>-deployment.yaml

Now, edit the <your-name>-deployment.yaml updating the <your-name> with your name, and run the below command once done.

$ kubectl create -f <your-name>-deployment.yaml

Exposing the Deployment

$ kubectl expose deployment <your-name>-deployment --type=LoadBalancer --port=80

Inspecting and Using PVs

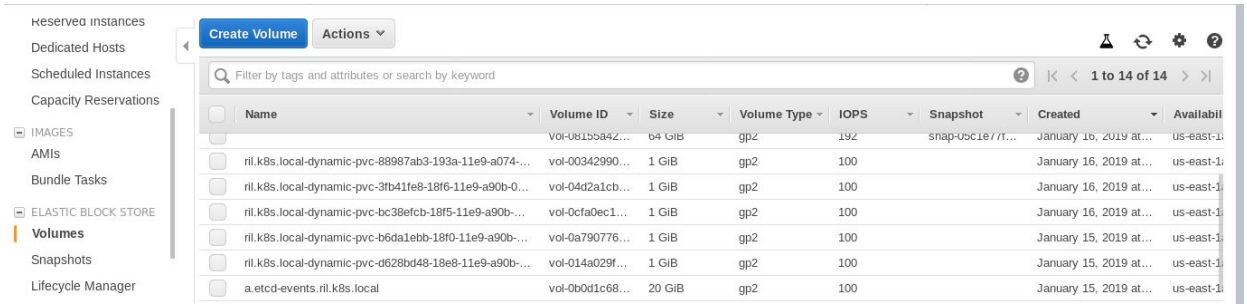
$ kubectl get pv

NAME CAPACITY ACCESS MODES RECLAIM POLICY STATUS CLAIM STORAGECLASS REASON AGE

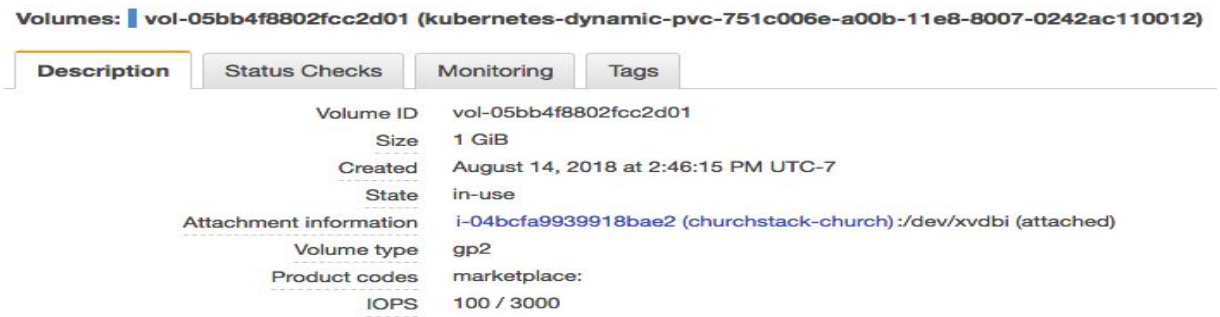
Pvc-751c 1Gi RWO Retain Bound default/task-pv-claim standard 3h

When claiming a Persistent volume on cloud provisioned (AWS) clusters, PV gets created as an EBS Volumes.

To check the details, login to the AWS console > EC2 > ELASTIC BLOCK STORE > Volumes



The AWS console shows a volume has been provisioned having a matching name with type gp2 and a 1GiB size.



Inspecting and Using PVCs

$ kubectl get pvc ## to get the list of PVCs created.
$ kubectl describe pvc <pvc-name> # to describe the pvc details.

Accessing the Application

$ kubectl get svc

Copy the External IP attached to your service.
http://your-endpoint.com

Or, login to the Kubernetes Dashboard
Goto services and click on the external-endpoint link to access the application.

Wait for 4-5 minutes before accessing the endpoint as it takes time for the app to gets attached to the LoadBalancer.