



Automatic pv creation

Ref – <https://docs.vultr.com/how-to-provision-persistent-volume-claims-on-vultr-kubernetes-engine>

- Create a persistent volume claim with storageClassName set to **vultr-block-storage-hdd**

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: csi-pvc
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 40Gi
  storageClassName: vultr-block-storage-hdd
```



- Apply the pod manifest

```
apiVersion: v1
kind: Pod
metadata:
  name: mongo-pod
spec:
  containers:
    - name: mongo
      image: mongo:4.4
      command: ["mongod", "--bind_ip_all"]
      ports:
        - containerPort: 27017
      volumeMounts:
        - name: mongo-storage
```



```
- name: mongo-storage
```

persistentVolumeClaim:



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- Explore the resources created

```
kubectl get pv
kubectl get pvc
kubectl get pods
```



- Put some data in mongodb

```
kubectl exec -it mongo-pod -- mongo
use mydb
db.mycollection.insert({ name: "Test", value: "This is a test" })
exit
```



- Delete and restart the pod

```
kubectl delete pod mongo-pod
kubectl apply -f mongo.yml
```



- Check if the data persists

```
kubectl exec -it mongo-pod -- mongo
use mydb
db.mycollection.find()
```



```
-----
> use mydb
switched to db mydb
> db.mycollection.find()
{ "_id" : ObjectId("66659b1845d3d75115c37228"), "name" : "Test", "value" : "This is a test" }
> █
```