

MiniKube

Install Minikube

<https://minikube.sigs.k8s.io/docs/start/>

Install minikube

```
curl -LO  
https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64  
sudo install minikube-linux-amd64 /usr/local/bin/minikube
```

Install Kubectl

```
curl -LO "https://dl.k8s.io/release/$(curl -L -s  
https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"  
sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl
```

```
minikube start
```

Run PostgreSQL server and Pgadmin on minikube

Deploy Postgres

Create configuration file (.yaml)

[postgres-configuration.yaml](#)

```
apiVersion: v1  
kind: ConfigMap  
metadata:  
  name: postgres-config  
  labels:  
    app: postgres  
data:  
  POSTGRES_DB: postgresdb  
  POSTGRES_USER: admin  
  POSTGRES_PASSWORD: test123  
  
---  
  
apiVersion: apps/v1  
kind: Deployment  
metadata:  
  name: postgres  
spec:  
  replicas: 1
```

```
selector:
  matchLabels:
    app: postgres
template:
  metadata:
    labels:
      app: postgres
  spec:
    volumes:
      - name: postgres-pv-storage
        persistentVolumeClaim:
          claimName: postgres-pv-claim
    containers:
      - name: postgres
        image: postgres:12
        imagePullPolicy: "IfNotPresent"
        ports:
          - containerPort: 5432
        envFrom:
          - configMapRef:
              name: postgres-config
        volumeMounts:
          - mountPath: /var/lib/postgresql/data
            name: postgres-pv-storage
---

apiVersion: v1
kind: Service
metadata:
  name: postgres
  labels:
    app: postgres
spec:
  type: NodePort
  ports:
    - port: 5432
  selector:
    app: postgres
---

apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: postgres-pv-claim
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
```

```
storage: 100Mi
```

```
kubectl apply -f <namefile>
```

Deploy Pgadmin

<https://www.enterprisedb.com/blog/how-deploy-pgadmin-kubernetes>

Create configuration file (.yaml)

[pgadmin-configuration.yaml](#)

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: postgres-config
  labels:
    app: postgres
data:
  POSTGRES_DB: postgresdb
  POSTGRES_USER: admin
  POSTGRES_PASSWORD: test123
---

apiVersion: apps/v1
kind: Deployment
metadata:
  name: postgres
spec:
  replicas: 1
  selector:
    matchLabels:
      app: postgres
  template:
    metadata:
      labels:
        app: postgres
    spec:
      volumes:
        - name: postgres-pv-storage
          persistentVolumeClaim:
            claimName: postgres-pv-claim
      containers:
        - name: postgres
          image: postgres:12
          imagePullPolicy: "IfNotPresent"
          ports:
            - containerPort: 5432
          envFrom:
```

```

      - configMapRef:
          name: postgres-config
    volumeMounts:
      - mountPath: /var/lib/postgresql/data
        name: postgres-pv-storage
  ---

apiVersion: v1
kind: Service
metadata:
  name: postgres
  labels:
    app: postgres
spec:
  type: NodePort
  ports:
    - port: 5432
  selector:
    app: postgres
  ---

apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: postgres-pv-claim
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 100Mi

```

```
kubectl apply -f <filename.yaml>
```

Connect pgadmin to server

```
minikube service <NamePgadminService>
```

1. Login Pgadmin
2. Server -> Properties
3. Change host name/address to Postgres service name -> postgres
4. Change username to one set in postgres config file -> admin
5. Change port (if not default) to ContainerPort (not Minikube service port) -> 5432
6. Connect to server

From:

<https://wiki.csgalileo.org/> - **Galileo Labs**

Permanent link:

<https://wiki.csgalileo.org/tips/minikube?rev=1632832812>

Last update: **2021/09/28 14:40**

