

MiniKube

Install Minikube on ubuntu

<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
```

Install on arch

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>
```

- Login Pgadmin
- Server -
|
- > Properties

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

From:

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

Permanent link:

<https://wiki.csgalileo.org/tips/minikube>

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