

LOGZILLA DOCUMENTATION

Kubernetes PostgreSQL

PostgreSQL Kubernetes manifest for LogZilla, defining the Secret, ConfigMap, PersistentVolumeClaim, StatefulSet, and Service required by the API module

Kubernetes Deployment Overview · Generated April 29, 2026 · logzilla.ai/docs/kubernetes-deployment/postgres

PostgreSQL manifest

```
apiVersion: v1
kind: Secret
metadata:
  name: postgres-secret
type: Opaque
stringData:
  POSTGRES_USER: postgres
  POSTGRES_PASSWORD: <set-strong-password>
---
apiVersion: v1
kind: ConfigMap
metadata:
  name: postgres-multimap
data:
  POSTGRES_DB: logzilla
---
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: postgres-pvc
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 100Mi
---
apiVersion: apps/v1
kind: StatefulSet
metadata:
  name: postgres
spec:
  serviceName: postgres
  selector:
    matchLabels:
      name: postgres
  template:
    metadata:
      labels:
        name: postgres
    spec:
      containers:
        - name: postgres
          image: library/postgres:17.2-alpine
          args:
            - postgres
            - -c
            - max_connections=500
```

```
resources:
  requests:
    memory: 500Mi
    cpu: 500m
  limits:
    memory: 1Gi
    cpu: 1000m
ports:
- containerPort: 5432
livenessProbe:
  exec:
    command: [
      "pg_isready",
      "-U", "$(POSTGRES_USER)",
      "-d", "$(POSTGRES_DB)"
    ]
  failureThreshold: 5
  periodSeconds: 1
  timeoutSeconds: 15
readinessProbe:
  exec:
    command: [
      "pg_isready",
      "-U", "$(POSTGRES_USER)",
      "-d", "$(POSTGRES_DB)"
    ]
  initialDelaySeconds: 20
  timeoutSeconds: 5
  periodSeconds: 3
  failureThreshold: 2
  successThreshold: 1
volumeMounts:
- name: postgres
  mountPath: /var/lib/postgresql/
  readOnly: false
env:
- name: POSTGRES_PASSWORD
  valueFrom:
    secretKeyRef:
      name: postgres-secret
      key: POSTGRES_PASSWORD
- name: POSTGRES_USER
  valueFrom:
    secretKeyRef:
      name: postgres-secret
      key: POSTGRES_USER
- name: POSTGRES_DB
  valueFrom:
    configMapKeyRef:
      name: postgres-multimap
      key: POSTGRES_DB
volumes:
- name: postgres
  persistentVolumeClaim:
```

```
      claimName: postgres-pvc
---
apiVersion: v1
kind: Service
metadata:
  name: postgres
spec:
  ports:
    - port: 5432
      targetPort: 5432
      protocol: TCP
  type: ClusterIP
  selector:
    name: postgres
```

Notes

- Replace placeholder values in `postgres-secret` with environment-specific strong credentials. Examples use `stringData` for readability.
- If you prefer `data:` instead of `stringData`, base64-encode values.
- The readiness/liveness probe uses variables for database name and user. Ensure the variable names match the environment (for example, `POSTGRES_DB`).