

Kubernetes Deployment - Web Application

```
# Kubernetes Deployment - Web Application
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: web-app
  namespace: production
  labels:
    app: web-app
    tier: frontend
spec:
  replicas: 3
  selector:
    matchLabels:
      app: web-app
  template:
    metadata:
      labels:
        app: web-app
        tier: frontend
    spec:
      containers:
        - name: web-app
          image: nginx:1.25.3
          ports:
            - containerPort: 80
          resources:
            requests:
              cpu: "100m"
              memory: "128Mi"
            limits:
              cpu: "500m"
              memory: "256Mi"
          livenessProbe:
            httpGet:
              path: /healthz
              port: 80
            initialDelaySeconds: 10
            periodSeconds: 30
          readinessProbe:
            httpGet:
              path: /ready
              port: 80
            initialDelaySeconds: 5
            periodSeconds: 10
```

```
---
```

```
apiVersion: v1
kind: Service
metadata:
  name: web-app-svc
  namespace: production
spec:
  type: ClusterIP
  selector:
    app: web-app
  ports:
    - port: 80
      targetPort: 80
      protocol: TCP
```