**Enoncé Chapitre 4**

1. Déployer l’application avec sur cluster Kubernetes local

**Solution**

1. Installer le cluster Kubernetes depuis votre Docker Desktop
2. Créer un fichier deployment.yml avec le contenu suivant :
3. apiVersion: apps/v1  
   kind: Deployment  
   metadata:  
    name: product-service  
   spec:  
    replicas: 1  
    selector:  
    matchLabels:  
    app: product-service  
    template:  
    metadata:  
    creationTimestamp: null  
    labels:  
    app: product-service  
    spec:  
    containers:  
    - image: aymendr/product-service  
    imagePullPolicy: IfNotPresent  
    name: product-service  
    ports:  
    - containerPort: 8081  
    env:  
    - name: MYSQL\_HOST  
    value: mysql  
    - name: NOTIFICATION\_HOST  
    value: notification-service  
     
   --- *# product-service Service*apiVersion: v1  
   kind: Service  
   metadata:  
    name: product-service-lb  
   spec:  
    ports:  
    - name: 8081-8081  
    port: 8081  
    protocol: TCP  
    targetPort: 8081  
    selector:  
    app: product-service  
    type: LoadBalancer  
     
   --- *# Notification Deployment*apiVersion: apps/v1  
   kind: Deployment  
   metadata:  
    name: notification-deployment  
   spec:  
    replicas: 1  
    selector:  
    matchLabels:  
    app: notification-app  
    template:  
    metadata:  
    labels:  
    app: notification-app  
    spec:  
    containers:  
    - image: aymendr/notification  
    imagePullPolicy: IfNotPresent  
    name: notification-app  
    ports:  
    - containerPort: 8082  
   ---  
     
   *# Notification Service*apiVersion: v1  
   kind: Service  
   metadata:  
    name: notification-service *# DNS name*spec:  
    ports:  
    - port: 8082  
    targetPort: 8082  
    selector: *# mysql Pod Should contain same labels* app: notification-app  
    type: ClusterIP  
   ---  
     
   *# Configure 'Deployment' of mysql server*apiVersion: apps/v1  
   kind: Deployment  
   metadata:  
    name: mysql  
   spec:  
    selector: *# mysql Pod Should contain same labels* matchLabels:  
    app: mysql  
    tier: database  
    strategy:  
    type: Recreate  
    template:  
    metadata:  
    labels: *# Must match 'Service' and 'Deployment' selectors* app: mysql  
    tier: database  
    spec:  
    containers:  
    - image: mysql:latest *# image from docker-hub* name: mysql  
    env:  
    - name: MYSQL\_ROOT\_PASSWORD  
    value: springuser  
    - name: MYSQL\_DATABASE  
    value: product\_db  
    - name: MYSQL\_USER  
    value: springuser  
    - name: MYSQL\_PASSWORD  
    value: springuser  
    ports:  
    - containerPort: 3306  
    name: mysql  
   ---  
   *# Define a 'Service' To Expose mysql to Other Services*apiVersion: v1  
   kind: Service  
   metadata:  
    name: mysql *# DNS name*spec:  
    ports:  
    - port: 3306  
    targetPort: 3306  
    selector: *# mysql Pod Should contain same labels* app: mysql  
    tier: database  
    type: ClusterIP

Exécuter la commande : kubectl apply –f deployment.yml