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k3d cluster create mycluster1 -p "8081:8081@loadbalancer"

apiVersion: apps/v1

kind: Deployment

metadata:

name: mongodb-deployment

spec:

replicas: 1

selector:

matchLabels:

app: mongodb

template:

metadata:

labels:

app: mongodb

spec:

containers:

- name: mongodb

image: mongo

ports:

- containerPort: 27017

env:

- name: MONGO\_INITDB\_ROOT\_USERNAME

valueFrom:

secretKeyRef:

name: mongodb-secret

key: mongo-root-username

- name: MONGO\_INITDB\_ROOT\_PASSWORD

valueFrom:

secretKeyRef:

name: mongodb-secret

key: mongo-root-password

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apiVersion: v1

kind: Service

metadata:

name: mongo-service

spec:

selector:

app: mongodb

ports:

- protocol: TCP

port: 27017

targetPort: 27017

Create 2 files for username and password (yaml)

Use the following command for both username and password:

echo -n mongo-root-username | base64

echo -n mongo-root-password | base64

Create a 3rd file called secret.yaml and paste the following:

apiVersion: v1

kind: Secret

metadata:

name: mongodb-secret

type: Opaque

data:

mongo-root-username: {base64 encoded string}

mongo-root-password: {base64 encoded string}

Create the secret yaml file

kubectl apply -f {secret\_filename}

Create the deployment using the deployment file

kubectl apply -f {deployment\_filename}

Nano config\_map.yaml file and paste the following:

apiVersion: v1

kind: ConfigMap

metadata:

name: mongodb-configmap

data:

database\_url: mongo-service

Nano mongo\_express.yaml and paste the following:

apiVersion: apps/v1

kind: Deployment

metadata:

name: mongoexp-deployment

spec:

replicas: 1

selector:

matchLabels:

app: mongo-express

template:

metadata:

labels:

app: mongo-express

spec:

containers:

- name: mongo-express

image: mongo-express

ports:

- containerPort: 8081

env:

- name: ME\_CONFIG\_MONGODB\_ADMINUSERNAME

valueFrom:

secretKeyRef:

name: mongodb-secret

key: mongo-root-username

- name: ME\_CONFIG\_MONGODB\_ADMINPASSWORD

valueFrom:

secretKeyRef:

name: mongodb-secret

key: mongo-root-password

- name: ME\_CONFIG\_MONGODB\_SERVER

valueFrom:

configMapKeyRef:

name: mongodb-configmap

key: database\_url

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apiVersion: v1

kind: Service

metadata:

name: mongo-exp-service

spec:

selector:

app: mongo-express

type: LoadBalancer

ports:

- protocol: TCP

port: 8081

targetPort: 8081

Apply the config file with:

kubectl apply -f {configmap\_filename}

Create the deployment app:

kubectl apply -f mongo-express.yaml

Done go on localhost: 27017 and follow the rest of the instructions given:

https://docs.google.com/document/d/1A7FWSQ5JL108eAtTNQ3KCKutMHjd6Btx-6bA3RnDPKA/edit