DEMO-mini project + Scheduling LAB3:

Links

🕐 mongodb image on Docker Hub: https://hub.docker.com/_/mongo
mongo:5.0
🕐 webapp image on Docker Hub: https://hub.docker.com/repository/docker/nanajanashia/k8s-demo-app
nanajanashia/k8s-demo-app:v1.0

🕐 k8s official documentation: https://kubernetes.io/docs/home/
🕐 webapp code repo: https://gitlab.com/nanuchi/developing-with-docker/-/tree/feature/k8s-in-hour

1 Create ConfigMap for MongoDB EndPoint. (The MondoDB sevice name)

    DB_URL:mongo-service

    name of clusterIP service attached to db-deployment

2 Create A secret for MongoDB User & PWD

    USER_NAME: mongouser

    USER_PWD: mongopassword

3 Create MongoDB Deployment Application with Internal service (ClusterIp) Mongo DB needs username + password to operate

    Vars needed in mongoDB:

    MONGO_INITDB_ROOT_USERNAME: root

    MONGO_INITDB_ROOT_PASSWORD: example

4 Create webApp Deployment(FrontEnd(with external service) and it needs to access MongoDb, so it needs username+ password + mongodb endpoint (mongodb service) container runs on 3000

8- How many Nodes exist on the system?

9- Do you see any taints on master ?

10- Apply a label color=blue to the master node

11- Create a new deployment named blue with the nginx image and 3 replicas

Set Node Affinity to the deployment to place the pods on master only

NodeAffinity: requiredDuringSchedulingIgnoredDuringExecution

Key: color

values: blue

12- Create a taint on node01 with key of spray, value of mortein and effect of

NoSchedule

13- Create a new pod with the NGINX image, and Pod name as

mosquito

14- What is the state of the mosquito POD?

15- Create another pod named bee with the NGINX image, which has a toleration set to

the taint Mortein

Image name: nginx

Key: spray

Value: mortein

Effect: NoSchedule

Status: Running