313-Recitation 9: Kubernetes

Goal: During this recitation, we will explore deploying Mayan EDMS with Kubernetes and deploy an application using a typical microservice architecture.

Task:

1. Ensure you have Docker installed.
2. In the Docker configuration, enable Kubernetes.
3. Using your Docker Compose configuration you built during Recitation 2, create a Kubernetes configuration for deploying Mayan-EDMS.
    a. For this task, you should be creating 4 files:
        i. *mayan-edms-service.yaml:*
        This should be a LoadBalancer service that maps the correct ports for Mayan EDMS.
        ii. *mayan-edms-deployment.yaml:*
        This file should provide the deployment information for mayan-edms, including how to setup the required environment variables, ports, and required image.
        For this exercise, use the mayanedms/mayanedms:latest image.
        iii. *postgresql-service.yaml:*
        This should be a LoadBalancer service that maps the correct ports for PostgreSQL.
        iv. *postgresql-deployment.yaml:*
        This file should provide the deployment information for postgres, including how to setup the required environment variables, ports, and required image.
        For this exercise, use the postgres:9.6 image.
4. Try running your configuration with kubectl.

Examples:
Here's what a LoadBalancer service could look like:

```
apiVersion: v1
kind: Service
metadata:
  name:
  labels:
    app:
spec:
  type: LoadBalancer
  ports:
  - port:
  selector:
    app:
```

Here's what a deployment could look like:

```
apiVersion: extensions/v1beta1
kind: Deployment
metadata:
```

```
  name:
spec:
  replicas: 1
  template:
    metadata:
      labels:
        app:
    spec:
      containers:
      - name:
        image:
        resources:
          requests:
            cpu: 100m
            memory: 100Mi
        env:
        - name: SOME_ENVIRONMENT_KEY
          value: “VALUE”
        ports:
        - containerPort:
```