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.
   1. For this task, you should be creating 4 files:
      1. *mayan-edms-service.yaml:*  
         This should be a LoadBalancer service that maps the correct ports for Mayan EDMS.
      2. *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.
      3. *postgresql-service.yaml:*  
         This should be a LoadBalancer service that maps the correct ports for PostgreSQL.
      4. *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: