

## Exercise 2

1

Create a docker file that starts the jenkins server. It should start with httpPort set to 8090 and prefix="umlJenkins". Use instructions [here](#) and 'docker run' to start the container.

**Submit** proof you have the container running. In particular, the command

```
docker logs <container id>
```

should display the line:

"Please use the following password to proceed to installation:"

**Submit** the Jenkins password. Also the **output to the command**:

```
docker exec -it <container id> env
```

(Where the container id is taken from "docker ps" output.)

2

Create a kubernetes deployment that runs the mysql database. The deployment should have a persistent volume. Create a mysql client that accesses mysql. **Provide evidence** that the client can access the database, e.g. a screenshot.

You may use yaml files and the instructions [here](#).

**Describe the steps** you performed to create the persistent volume, deployment, service, and client. **Describe what each of the steps do** in your own words. **Submit output** of commands:

```
kubectl describe deployment mysql
kubectl describe pvc mysql-pv-claim
kubectl get pods -l app=mysql
```

3

Define what "devOps" is. In your definition, give three ways it makes software development faster.

In this class, we chose to run Jenkins in kubernetes. We could have run it externally to kubernetes and only had the results of the pipeline run in kubernetes. What are 3 pros and 3 cons of running the full jenkins pipeline in kubernetes?