10

Helm

In this lab you need to get familiar with `Helm`. Setup local development environment and prepare a few manifests for your application.

1. Read about `Helm`:
    - Helm Architecture - https://helm.sh/docs/topics/architecture/
    - Charts - https://helm.sh/docs/topics/charts/
2. Install `helm`:
    - Installing Helm - https://helm.sh/docs/intro/install/
    - Chart repository - https://helm.sh/docs/intro/quickstart/#initialize-a-helm-chart-repository
3. Create your own chart:
    - Example - https://helm.sh/docs/intro/using_helm/#creating-your-own-charts
    - Inside the `k8s` folder use `helm create your-app` to create a template.
    - To use your own application repository instead of the default repository provided, replace the default repository and tag inside the `values.yaml` with your repository name.
    - Don't forget to change `containerPort` in the `deployment.yml`.
    - If you can't troubleshoot `livenessProbe` and `readinessProbe` - comment it.

    > Use `minikube dashboard` command for troubleshooting.

4. Install your helm chart and make sure that all services are healthy. Check `Workloads` page in the `minikube` dashboard.
5. Check it by `minikube service your_service_name` command. Also provide the output of `kubectl get pods,svc` command in the report.

Bonus

1. Prepare a helm chart for your extra app.
2. Read about `Library Charts`, provide the explanation in a nutshell, as you understand it. No copy paste.