Academy 2024h1

Project week 6:

Initial considerations:

1. Document your results with screenshots. You do not need to show all the mistakes you made in the process, but you can save them and share them on the day of the presentation.
2. You should submit a pdf file with the evidence and with the format `<globant user>-Project-<week>`, for example: `juan.quinayas-Project-6.pdf`.
3. Everything must remain in the `dev` namespace

Repository:

Use git as local repository and Gitea as remote repository. Remember that you already mounted Gitea in a docker container in mini-project-2.

Application:

Use the previous application: Python

Database:

Use a database to make your Python API persistent. We are talking about using MySQL, PostgreSQL, Mongodb or whatever you want. You are free.

Docker:

Use docker to deploy Gitea, Jenkins, PythonAPI, DB and/or any other resources you need.

k8s resources:

1. Use helm to create a deployment with `replicas = 2` and a service of type `NodePort`.
2. Use the following hierarchy:

- k8s
  - python-api
    - templates
      - deployment.yaml
      - service.yaml
    - Chart.yaml
    - values-dev.yaml

CI/CD pipeline:

1. Create a Jenkins pipeline that use helm to deploy all k8s services in the minikube cluster.

Monitoring

1. Use minikube dashboard to show the cluster resources.

Bonus

1. Install linkerd in the cluster.
2. Install linkerd viz in the cluster.
3. Use `linkerd viz dashboard &` command to show the cluster resources.