DevOps Engineer Technical Task

Overview

Context

The task of the DevOps at WeBreathe is a new position. As such the hired candidate will have to put in place all the needed procedures and tools to transfer the teams to a true DevOps methodology.

As the architect of a new methodology and a bridge between the development and infrastructure team , the new DevOps engineer must a vast array of knowledge from system administration to development and security practice.

Instructions

The goal of this exercise is to test the candidate's ability to create and deploy a simple application using Docker and Kubernetes. The candidate will need to:

1. Use a simple web application provided.
2. Containerize the application using Docker.
3. Deploy the application on a Kubernetes cluster.
4. Setting up a CI/CD pipeline to automate testing and deployment.
5. Make a facecam video to introduce yourself and your work.

Evaluation Criteria

Your submission will be evaluated based on the following criteria:

- **Understanding of concepts**: Do you have a solid understanding of Docker and Kubernetes?
- **Architecture**: Is the application architecture and deployment setup logical and well-structured?
- **Problem-solving**: Were you able to troubleshoot and resolve any issues encountered during setup?
- **Code quality**: Is the Dockerfile, Kubernetes files, and application code clean, well-organized, and follow best practices?

Possible Extensions

For an advanced version of the exercise, you could add extra requirements such as:

- Implementing a staging and production environment.
- Implementing scaling strategies and resource management in Kubernetes (e.g., replicas, resource limits, etc.).