

Cloud Engineering Third Semester Examination Project

Overview

We deploy our microservices-based architecture on Kubernetes and we need to create a clear IaC (Infrastructure as Code) deployment to be able to deploy our services in a fast manner.

Setup Details

Provision a webapp of your choosing with nginx/httpd frontend proxy and a database (mongo, postgresql etc) backend .

Provision the Socks Shop example microservice application -
<https://microservices-demo.github.io/>

Task Instructions

- Everything needs to be deployed using an Infrastructure as Code approach.
- In your solution please emphasize readability, maintainability and DevOps methodologies. We expect a clear way to recreate your setup and will evaluate the project decisions on:
 - Deploy pipeline
 - Metrics
 - Monitoring
 - Logging

- Use Prometheus as a monitoring tool
- Use Ansible or Terraform as the configuration management tool.
- You can use an IaaS provider of your choice.
- The application should run on Kubernetes

Extra requirements of the project:

- The application should run on HTTPS with a Let's Encrypt certificate
- Bonus point for securing the infrastructure with network perimeter security access rules
- Extra-bonus point if you use Ansible vault for encrypting sensitive information

How to Submit:

1. Create a new repository for your project on GitHub
2. Host the project online, using any hosting platform of your choice
3. Fill this form: [AltSchool of Cloud Engineering 3rd Semester Exam Submission](#) with links to the project's github repo, and where it is hosted online

Submission Deadline: 18th March, 2023