Take Home Challenge

Do either the Devops challenge or the Date Eng

DevOps

A data science teams wants to deploy to production an acoustic AI application that recognizes the sound events uploaded by a user. Part of this application is a Node.js API that stores uploaded sound data in MongoDB.

The API code is hosted on : https://github.com/colin-carro/devops-challenge

- Dockerize the above application
- Build a CI/CD Pipeline using your preferred technology
- Propose further steps that will be necessary for the API to be production ready.

Deliverables

- Your application code in a compressed archive file
- Short design documentation describing the pipeline architecture. State all your assumptions.
- Documentation on how to use the deployed API

Either

- Documentation on how to run the CI/CD pipeline, or
- Access to the CI/CD pipeline running in the cloud.

Data Engineering

A data science team is building a data application for fleet management, and they feel that weather data will be useful. They want a data pipeline to extract, transform and load the weather data into the data lake, so that they can analyze this data.

- Create a data pipeline in your preferred technology
- Load the weather data from a public weather api, e.g. Weather API - OpenWeatherMap
- Calculate the maximum weekly temperature, when it is raining.
- Store the data in a data store of your choice.

Deliverables

- Your application code in a compressed archive file
- Short design documentation describing the architecture. State all your assumptions.
- Maintenance documentation on how to address 3 common problems

Either

- Documentation on how to set up and run the data pipeline, including the data store, or
- Access to the data pipeline running in the cloud, and the data store.