Aiven Solutions Architect Homework

This is a coding assignment for a Solutions Architect position at Aiven.

The exercise should be relatively fast to complete. You can spend as much time as you want to, but it should be feasible in a couple of hours to an evening.

If you run out of time, please return a partial solution, and describe in your

reply how you would continue having more time.

You are free to use any language, framework, and tools to complete

this challenge.

Please be ready to demo the solution in the possible interview later.

To return your homework, store the code and related documentation on GitHub

for easy access. Please send following information via email:

- A link to the GitHub repository
- if you ran out of time and you are returning a partial solution, description

of what is missing and how you would continue

Only your code will only be used for the evaluation, i.e. no need to containerize or deploy your application anywhere. It can run locally on your computer.

Exercise

It is common to create and handoff help articles or walkthroughs for customers that need help with certain technologies, issues, or features. Ideally these assets can be created once and used many times. This exercise is meant to evaluate your technical hands on and communication skills.

The goal is to create a short tutorial for using Aiven Kafka. Please follow the instructions below and create a "Aiven Kafka Quickstart with <<X Framework>>" blog post or sample help article.

Aiven is a Database as a Service vendor and the homework requires using our

services. Please register to Aiven at https://console.aiven.io/signup.html at

which point you'll automatically be given $300 worth of credits to play around

with. The credits should be enough for a few hours of use of our services. If

you need more credits to complete your homework, please contact us.

After testing you can also turn off the services and they will stop consuming credits. They can then be turned back on as needed.

Evaluation Criteria - Tutorial

- Easy to follow instructions
- Simple code snippets used appropriately
- Screen shots used appropriately
- Clean demo code

Demo Application

https://help.aiven.io/en/articles/489572-getting-started-with-aiven-kafka

Your task is to create a Kafka service into Aiven and write a piece of code

that produces valid JSON data to a topic in that service.

The key should be a valid JSON string containing a random id, e.g. UUID, and the message payload should be a valid JSON object. The payload should be a mock "event" from an interesting use case, e.g. IoT sensor, stock tickets, or financial transactions. The event should include a timestamp represented by a string with the date in ISO 8601 format.

The producer's data should be readable from the Aiven web console from the

Kafka service view > Topics => Topic => Fetch Messages (Format: json)

Integrations - Observability and Monitoring

https://help.aiven.io/en/articles/489587-getting-started-with-aiven-grafana

Next enable integrations from Kafka => InfluxDB => Grafana to gather metrics from your Kafka service.

Writeup

Create a blog like article that walks a semi-technical or technical employee through the process of working with Aiven Kafka and Observability. This can be in any format or tooling that you prefer, but please include it in the deliverables, e.g. markdown file + screenshots.