



## **Instructions**

- Think about the problem on the following page and prepare in any way you deem necessary.
- The goal of this part is to check how we would work together in person, it isn't a formal test - so no need to do anything special beyond a sensible level of reading / research and preparation.
- When you come to visit us in the office, we will work on the problem along with you. Please bring your laptop when you come to the office for this assignment and have a virtual environment with all the required libraries already installed.
- Try and complete any setup prior to the session so we can focus on just engineering tasks.
- Feel free to ask any clarifications in advance.

## **Problem**

- We have a reasonably complex, microservices based architecture that is orchestrated with a message broker (Pub/Sub, Kafka, etc.) that needs to be deployed on multiple cloud environments and on bare metal servers.



- We want to monitor the services using a single monitoring library, compatible with various cloud monitoring services and open source monitoring services.
- For this task, look into GCP Stackdriver and Prometheus. We will build a single python API that is capable of monitoring gauge, histograms and time series data.
- Find the Stackdriver python API [here](#). Find the Prometheus python API [here](#). We want to unify these behind a single API.