Assignment Description

Your task is to build a system for product reviews.

We prefer Golang, but feel free to use any language of your choice.

The application exposes RESTful API interfaces for manipulation with products and reviews. It will also handle calculation of average review product rating.

You are free to use any frameworks, databases, caching mechanisms and messaging brokers to develop a solution.

API

- RESTful API for products with create, delete, edit, list and get by identifier actions
    - product information should not return reviews, only average product rating
- RESTful API for reviews with create, delete and edit actions
- Endpoints to show product reviews
- Service should notify other services when a new review is added, modified or deleted

You can implement a small service that will log updates about reviews to showcase how other services are notified.

Average calculation

- The average calculation needs to be concurrency-safe.

Product reviews and average product ratings should be cached.

Data structures:

Product structure

- name
- description
- price
- list of reviews
- average rating (does not have to be directly a part of product)

Review structure

- first name
- last name
- review text
- rating (1 - 5)

What is provided as part of the implementation

- project setup using docker compose
- linter configuration

How to deliver the result

- A public Git repository with your code and configuration files
- Documentation that explains the thought process behind your implementation, including any design decisions or trade-offs you made, this can be done as part of project in README.md or as a PDF

Considerations

- the project itself should be easy to setup, extendable and maintainable by other developers
- pay attention to your commit messages

Please send the completed assignment to alena.blokhina@cloudtalk.io within 5 business days. Good luck!