

Exchange Rate Challenge

Task

You should create an API that fetches exchange-rates from one or more publicly available APIs and use them for conversion calculations.

1. Data source
 - a. Fetch data from this publicly available API, <https://exchangerate.host>
 - b. Any additional datasource you may want to add (optional)
2. API operations
 - a. Get exchange rate from Currency A to Currency B
 - b. Get all exchange rates from Currency A
 - c. Get value conversion from Currency A to Currency B
 - d. Get value conversion from Currency A to a list of supplied currencies
3. Documentation
 - a. Use Swagger to provide documentation and a testing interface for the API, like in this example: <https://petstore.swagger.io/>

Extra Credits

1. Introduce a mechanism to make as few calls as possible to the external provider, while still providing meaningful/valid data. Assume that the clients don't require real-time data and that they are fine to receive data with up to 1 min of delay.
2. Add unit tests to cover your code.
3. Add a rate-limiting mechanism to protect your API from abuse.
4. Provide a Dockerized setup for easy deployment.
5. Use GraphQL alongside REST to allow more flexible queries.
6. Implement authentication/authorization for the API.

Delivery

- You should use Java and the Spring framework.
- Host the project in a repository in your favourite Git provider: GitHub, GitLab or Bitbucket - and commit frequently.
- The project should have a README that explains how to run it.