CARD COST API

OVERVIEW

The Card Cost API is a part of the Etraveli Group hiring process, and will help us determine your level of competence. You are strongly encouraged to approach it with a professional attitude and deliver a working, production - grade solution.

Please keep in mind that this code will be reviewed and evaluated, and we expect you to be able to present it and probably even change it during your interview.

Below you will find the requirements of the challenge in full detail, as well as a comprehensive QA section, which you are urged to consult before contacting us with any questions. We will of course be available for any additional clarifications or questions that may arise.

We thank you in advance for your time and effort, and wish you good luck.

REQUIREMENTS

Background

A payment card number, primary account number (PAN), or simply a card number, is the card identifier found on payment cards.

The PAN is an 8 to 19 digit number displayed on one side of the card.

The first 6 digits of a payment card number (credit cards, debit cards, etc.) are known as the Issuer Identification Numbers (IIN), previously known as Bank Identification Number (BIN). These identify the institution that issued the card to the card holder.

Task

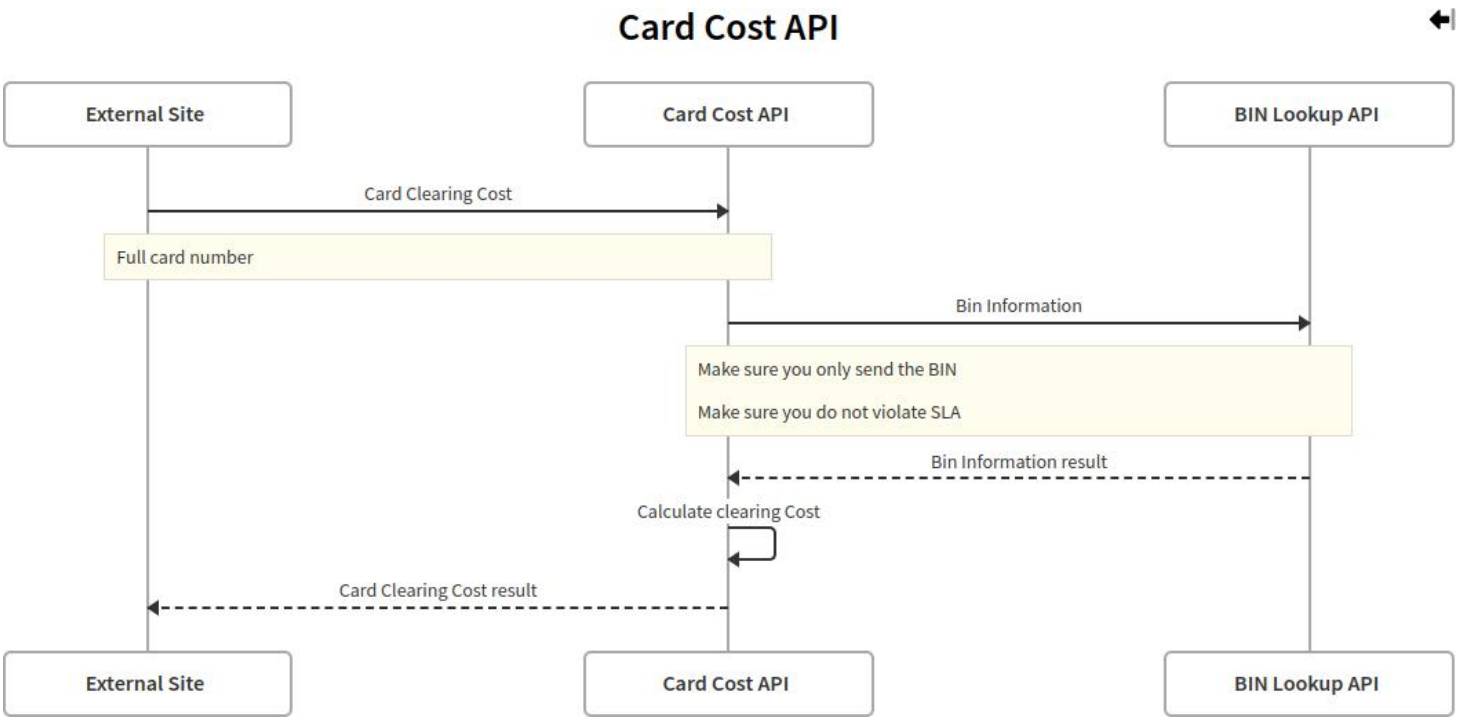
Given the following clearing cost matrix:

Card issuing country	Clearing Cost (USD)
US	$5
GR	$15
Others	$10

We would like you to create a REST API that can do the following:

- Have full Create Read Update Delete operations on the clearing cost matrix table
- Can respond with the clearing cost of a given card number, utilizing the information provided by this public API https://binlist.net/

The card clearing cost calculation is depicted in the following diagram:



Required deliverable traits

- A web (HTTP) API that can support the following action
  - HTTP POST on /payment-cards-cost of the following JSON:

```
{
"card_number": <pan>
}
```

  - Response:

```
{
    "country": <iso2_code>,
    "cost": <decimal>,
}
```

- The implementation of the API should be written in JAVA
- Comprehensive unit and integration tests
- Full source code
- Comprehensive documentation

Bonus points

- Docker deployable solution
- Detailed instructions
- Security considerations
- High availability
- Extendability

QA

Q: How many calls per minute should I expect in my API ?

A: From 1 to 7000 per minute.

Q: What java framework should I use?

A: Anyone you like!

Q: I discovered a bug but have already submitted my code! What can I do?

A: Tell us! It is ok to re-submit your code within a reasonable amount of time.