***EPG - Java Challenge***

Objective

Evaluate your OO analysis and modelling skills, developing skills, how you structure your code and design an API.

You should not need to spend more than 2 days on the task, if the solution provided is incomplete, explain which parts you decided to focus on and why they are relevant.

Keep the objective in mind, feel free to use any tool, libraries or frameworks, include a README file about the decisions you made, what you focused on and what you did not focus and why, as well as how to run and use the program.

Upload the code to GitHub and send an email with the link to [juan.bastias@easypaymentgateway.com](mailto:juan.bastias@easypaymentgateway.com)

System description

It’s about building a piece of software to generate a monthly billing relative to a Payment Processor (Credit Card Payment Processor) and an Ecommerce platform linked to. Ecommerce platforms require services from a Payment Processor so that their customers can make payments using their credit cards in order to get some goods and services.

So, you should take into consideration two entities:

* CC Payment Processor.
* Ecommerce company

Functional requirements

1. A Payment Processor bill the following way using a simple **Interchange ++ Pricing** model.

* A Flat Fee or Processing Fee (FF), meaning a fixed commission for each transaction.
* Acquirer Plus Pricing (APP). This value is calculated applying a specific percentage on the good or service amount. It is added to the above “Flat Fee”.

1. Payment Processor creation, a Flat Fee and Acquirer Plus values must be applied by daily processed transactions volume. Several APPs could be applied depending on volume/day and it affects all Ecommerce links to PP. For instance:

**Payment Processor name**: CCPP1

**Flat Fee**: 4

**Volumen**: 100/day - **APP**: 2%

**Volumen**: 200/day - **APP**: 1%

1. Ecommerce entity creation only has a unique field named “company name”. Ex: **Name**: ECOMMERCE1
2. A monthly settlement Ecommerce with the Payment Processor is generated by Ecommerce, so transactions volumes and amounts are indicated as example:

**Monthly Processing:** ECOMMERCE1

**Month**: December 21.

**Payment Processo**r: CCPP1

**Transactions**: 10,000 - **Amount**: 5.00 Euros.

**Transactions**: 20,000 - **Amount**: 3.00 Euros.

1. Query the billing by payment processor showing the following details by ecommerce linked to:

**Payment Processor**: CCPP1

**CCPP1 - ECOMMERCE1**: 23.000 EUR.

**CCPP1 - ECOMMERCE2**: 15.000 EUR.

1. Edit **FF** and **APP** by Payment Processor any moment must be possible impacting on the billing result by Ecommerce.

Restrictions

You may use Spring, Maven technology and libraries, frameworks and databases of your choice.Consider that your solution should come with deployment instructions.

Delivery

* Create a project available through a git public repository that we can access (we would like to be able to see how your solution progresses).
* Optional: Create any kind of report, diagram or chart to show the connections between the entities.