Please, read the exercice, choose your technologies of choice (preferably C# or Java) and at the end of it, please commit your solution to a GitHub Repository and send us the repo url so we can see the solution and guarantee that all the necessary description to use the solution is on the read.me file.

You have 1 week, starting on the day that the email was sent to finish the exercises.

In Farfetch we do appreciate that a candidate demonstrate knowledge in:
- REST API;
- Hypermedia;
- Cache Control
- Object oriented programming;
- SOLID Principles;
- Clean Code;
- Unit/Automation/Integration Testing;
- Design Patterns;
- Documentation

As extra that we also appreciate:
- Authentication & Authorization;
- SQL and NoSQL database;
- Service built with high performance.

Toggler

XPTO company has a digital platform built under SOA that currently contains 62 services/applications inside it. When a team needs to implement a new feature in his service, they implement it under a toggle so that the feature can be turned on or off as a fail-safe. To make a change in the toggle value on a production environment, the team needs to change it in a static file and restart the service/application in each server so that the changes take effect.

As you can imagine, this process can be painful and can lead to some unexpected behavior as the toggle value can be different in the multiple instances of the service/application.

XPTO company wants to change the system and is asking you to implement a new REST Web Api in the technology of your choice (preferably C# or Java) that could manage in real-time and dynamically the platform toggles.

- This service must be able to register new toggles that can be used by one or more services/applications with a hierarchy, as for example:
  - Toggle named _isButtonBlue_ with value _true_ can be used by all services.
  - Toggle named _isButtonBlue_ with value _false_ can only be used by the service ABC overriding the value of the toggle mentioned above.
  - Toggle named _isButtonGreen_ with value _true_ can only be used by the service ABC
  - Toggle named _isButtonRed_ with value _true_ can be used by all services except the service ABC
- When the services/applications request their toggles, they will only provide their identifiers and version.
- The company has multiple development teams around the world, and with the different time-zones they will not be able to be in contact with you, so the service must have a clear documentation for them to use.
- The API must have endpoints to perform management of the toggles.

- There will be a team that will maintain this service, and they must be able to easily change the code and deploy this service with confidence that they will not break any contract with the other services in the platform.
- **Provide a clear design documentation of your API with the all information about the resources and endpoints.**

As a Plus

- XPTO company is having multiple attacks in the endpoint where the services request their toggles info, so the security team is now advising that this endpoint must be protected and only the services with the correct authorization can access.

Don't forget, you must be proud of your delivery and completely confident to deploy it to production.