Please, read the problem of the exercise, choose your technologies of choice (preferably C# or Java) and at the end of the exercise, 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 to finish the exercise, starting on the day that the email was sent.

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.
- 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.

As a Plus

- XPTO company now wants to expose this service to the public, and to do so, the security team advised that only users with the Admin role can create and update a toggle.
- 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.
- This service must be able to broadcast to every service/application that a toggle has changed its value without having to know who those same services/applications are.

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