

## **Product Comparison Service**

As an end customer that wants to buy some product, I have many options from where to buy it, such as different websites and different retail shops. This can evidently make it hard to choose from where to buy.

The aim of this task is to design and implement a service that helps the end customer to decide which website or retail shop they can use to buy their product by comparing data from different providers.

The Product Comparison service should provide the below features:

- Service should provide an endpoint that accepts product name and category as a search options and returns a list of product info that matches it.
- The service should support multiple data sources for importing new products to the service data base (push, pull, batch data import, ....).
- Please provide full implementation for one data source and through an exception for other data sources. Your code should be flexible and allow for introducing new data sources.
- The solution should be documented but should also be understandable (try to follow SOLID and clean code principles).
- Performance and test cases are important.
- The system should be easy to scale and maintain.

## **The Stack**

The solution should be based on java or python as programming language, however you may select any framework you are familiar with. The solution should not be over engineered and running it on containers is preferred. We will be looking into how you solve the business logic with focus on good object-oriented design practices and API design!

## **Deliverables:**

- Once you are done, please upload your solution to your github and share the link.

## **Bonus Points (nice to have)**

If you want to go the extra mile you may consider the below points:

- Delivering the solution running on container based env such as docker.
- Assume there is an AI service that uses customer reviews for different products and provides recommendations on product providers, so you need to return the search result ranked based on result from recommendation service.
- The service should be of high availability