Backend dev

Hi! We are glad to have you doing our server engineering exercise. This exercise shouldn’t take

you more than 3-4 hours to complete. Review the instructions and let us know if you have any

questions. On the day of technical interview, please be ready to explain what you did and why.

The tech interview will include a review and discussion about this exercise.

Exercise

We want you to create a model for some data, and implement a simple server which provides it

back on a RESTful API endpoint. **Please write your code as you would for a production app**

**where possible.** You are free to use any package management, libraries, or other third-party

resources you normally would when developing.

Data Entities

StoreChain:

A store chain is represented by a Name (“Auchan” for example) and can sell multiple categories of products (biscuits, deodorants...)

Category:

A category is represented by a name. It can be sold in multiple stores.

MLModel:

A MLModel is an entity that represents a machine learning model. It contains an url (to retrieve the real machine learning model), a creation date. A given MLModel is only associated to one Category but a given Category owns multiple MLModels.

Acceptance Criteria

* Create an appropriate model for the above data using either:
  + NodeJS, Express
  + Python, SQLAlchemy, and FASTAPI
* create an application server with a set of RESTful endpoints supporting CRUD operations for every entity (keeping data coherency).
* And support the following access patterns in your endpoints (Read only):
  + To retrieve the latest MLModel given a category
  + To retrieve all the categories for a given store
* Provide configurations files to deploy the entire application (server and filled db) on Kubernetes/Docker

Extra Credit

These points are not mandatory, but it’s encouraged:

* Provide examples of unit tests if your code is not test driven
* Paginate your endpoints