

Back-End Final Project's Report

The project was developed, by the student, as part of the back-end development course from the entity FLAG.

The main objective is to apply and validate the knowledge acquired during the back-end training. For this purpose, an initial idea is proposed and a software solution must be developed that encompasses all the programmatic contents taught. Due to the nature and ambitious of the general idea, only a few aspects will be covered and validate for evaluation.

Briefing

Bbqing is a Portuguese company that produces and sells barbecue's products. Seeking to explore the online market, via Take-Away | Home-Delivery options, the company is currently looking for ideas to elaborate an app in order to connect customers to have access to their products with pleasing and cutting-edge alternatives solutions, other than, being locally in queuing lines.

General Idea

APP

Within the app, there will be 3 types of users: Clients + Roullote's Owners + Admins:

- **Clients:** can enter the website and check how many 'Roullote' are available at the time. The idea was to have a geo-localization of reach Roullote and scan a QRCODE being redirected to a sub-app containing all the information about the products for that particular Roullote and order the food with take-way or home-delivery options.
- **Roullote's Owners:** user must register within the app to be allowed to create several "Roullote" profiles under his responsibility and upload the necessary information for the main app to recognize the new roullotes created | edited | canceled. Due to exclusiveness, these users must book appointments with "bbqing" to schedule a proper time to get the pallets containing the desired products to be ordered to resell them with margin to the final customer.
- **Admins:** collect relevant data analytics, manage roles for each user, manage which products and conditions to be sold to Roullotes, manage the scheduling of stock's bookings.

REST API_1

Server that allows to check upon a list of products and information like: price, quantity, name and id.

REST API_2

Server that handles all the bookings and checks for eventually constraints and overlaps

Magic Under the Hood

APP => Main APP with Laravel Framework + SQL/PhpMyAdmin

API_1 => Node + Mongoose for list of products + swagger documentation (with JWT token)

API_2 => Node + Mongoose for stock's management

Extra => Socket.io's chat included in the Main App via "IFRAME"

Note: due to some incompatibilities, only MongoDB + Mongo-Express containers (docker) are being used.

How it works

Please check the excel file attached.

All the requested requirements for evaluation are in order.

Conclusion

This opportunity allowed me to test and grow in different aspects of Back-End. Starting with a more direct approach withing the Laravel Framework, understanding how it works and apply 'MVC' methodology. Communication with external API's. How do they function and what advantages it brings in terms of performance and security. Https Status, protect routes with middleware, gates and policies, understanding authentication and authorization, how to store and fetch data, how to use complementary libraries to improve the reading and writing of code. I know realize this was just a drop in an Ocean... and I am excited and eager to learn more and more :D