## Introduction

The projects are designed to have progressive development, starting with a simple backend to let the student be focused on user interface design (UI), these interfaces can be as complex as the student wants to develop using skills learned in the bootcamp.

Once basic requirements have been completed and user interface has been developed for applications, the student has the option to create new endpoints to add new features to the application.

## Development

#### Stage 1 (base development)

**Backend:**

1. Read endpoint: To get data from database it will be returned on JSON format to the client.

**Frontend**:

1. UI is open design development. Design and implementation depends on the students.
2. Create API calls needed to get all data from the server.

#### Stage 2 (New features)

**Backend**:

Possible endpoints to develop:

1. Endpoint to insert new entries to the DB.
2. Endpoint to update items on the DB.
3. Endpoint to delete an entry on the DB.

**Frontend:**

1. Get every together, use the new endpoints developed and add the new features to the UI.

#### Stage 3 (Optional)

1. Add a search function on your application.
2. Add sort functionality to the lists on your application.

## Project

### eCommerce

Every eCommerce needs a product's showroom and a shopping cart, the target of this project is to build your own product list like Amazon, those products would be read from a database and you can add products to a shopping cart, both functionalities are essentials on an online shop.

**Database:**

Table: products

Fields: id, title, description, price, image\_url, created\_at

Table: shopping\_cart

Fields: id, item\_id, added\_at, deleted\_at

**Stage 1:**

*Backend*

Endpoint: GET /products

Description: Endpoint to get *n* products from your database.

Suggested response

*HTTP 200*

{

id: int,

title: string,

description: string,

price: float,

image\_url: string

}

*FrontEnd*

UI: Develop your own product list, be creative using all tools that you learned at the bootcamp.

Data source: Use endpoints developed by you to get data needed.

**Stage 2:**

Feature: Add a product to a shopping cart.

Description: Enable your application to have a shopping cart, keep tracking the products that have been added to the shopping cart on your database, maybe you need to process that order further.

*Backend*

Endpoint: POST /cart/:product\_id

Description: Add a product to shopping cart.

Suggested response: *HTTP 201*

Endpoint: DELETE /cart/:product\_id

Description: Remove a product from your shopping cart, consider a soft delete option.

Suggested response: *HTTP 204*

*FrontEnd*

UI: Add the new functionality to you UI.