## 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 IU.

#### Stage 3 (Optional)

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

## Project

### Local Weather

The idea of this project is to build and web application where users can search for local weather, it will show temperature, wind speed and the probability of rain.A new feature will be added on the second version that gives to the user the option to add or remove locations from favorites.

**Database:**

Table: weathers

Fields: id, temperature, wind, rain\_prob, location\_id, image\_url

Table: locations

Fields: id, location

Table: favorites

Fields: id, weather\_id, created\_at, deleted\_at

**Stage 1:**

*Backend*

Endpoint: GET /search/:search\_term

Description: Endpoint to get the weather related with the search term.

Suggested response

*HTTP 200*

{

id: int,

location: string,

temperature: int,

unit: string,

rain\_prob: string,

wind: string,

icon\_url: string

}

*FrontEnd*

UI: Develop your own weather web application, 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: Location favorites.

Description: Enable your application to give an option to your users to add and remove a location to its favorites.

*Backend*

Endpoint: POST /favorite/:location\_id

Description: Add a location to favorites.

Suggested response: *HTTP 201*

Endpoint: DELETE /favorite/:location\_id

Description: Remove a location from favorites .

Suggested response: *HTTP 204*

*FrontEnd*

UI: Add the new functionality to you UI, and keep the user’s favorites locations.