Milestone 2

May 2022

Goals:

- ***<u>Offer a unique experience to the visitors of the visualization website</u>*** – By supplying a series of insightful visualizations, we will offer a nice preview of living in Barcelona to our visitors and improve their experience.
- ***<u>Point out the key factors why people should or should not live in Barcelona</u>*** – Through the analysed data and its visualizations we will be able to communicate to our visitors the main reasons for living in Barcelona, or why they should avoid that city. The reasons for living in such a city could be subjective, so we will try to point out all the pros and cons that someone could find helpful. We would prefer if our visitors made the decision based on their own reasoning, without us saying what is the better thing to do. Our job is to provide all the necessary information for making such a life-changing resolution.
- ***<u>State clear conclusions</u>*** – Communicate to visitors who are thinking of moving to Barcelona the main findings in an objective manner.
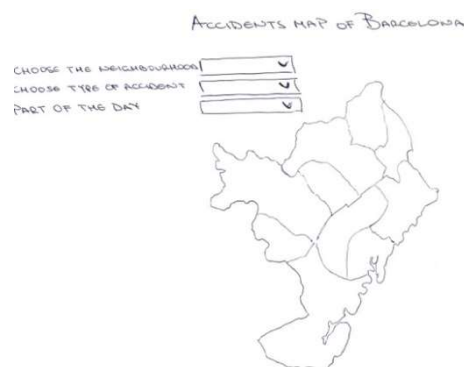
Visualizations

All the visualizations will be implemented on a one-page website developed with HTML, CSS, JavaScript, Bootstrap, and jQuery

1. Accidents map of Barcelona

The first visualization will deal with the accidents' statistics in Barcelona. Based on the time of the day when the accident has happened, its severity, and the part of the city where the accident has occurred, we will be able to help the users of our website determine what neighbourhoods could be seen as safe and, therefore, be a good fit for them to move to.

Lectures required: Maps, D3.js, More interactive d3.js

Technologies required: D3.js, jQuery, Bootstrap

2. Public transportation in Barcelona

The second visualization will provide users with the availability of different means of public transport in their surroundings. By using longitude and latitude of each station, we will locate it on the map. We will provide users with filter which could be used to get information about the specific type of transport in the area of search. There will also be a possibility to filter by the neighbourhood, in which case, only transportation of the chosen neighbourhood will be shown.
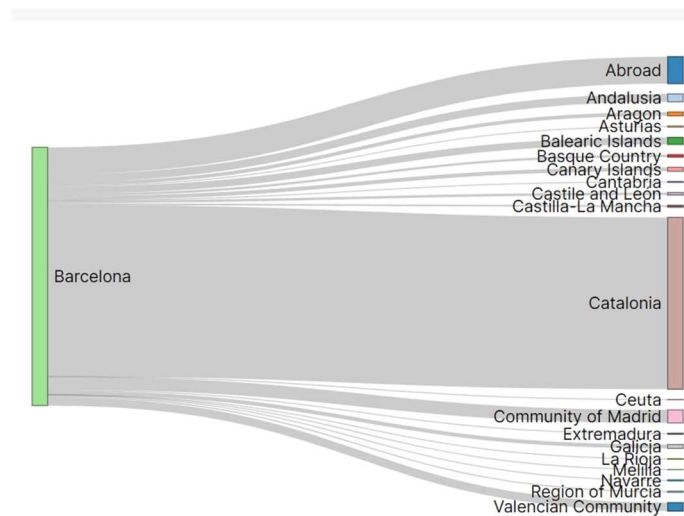
Lectures required: Maps, D3.js, More interactive d3.js

Technologies required: D3.js, jQuery, Bootstrap

3. Migration from/in Barcelona

The last visualization will provide information about emigration and immigration from/to Barcelona. It will have dynamic objects (points) moving from one side to another to illustrate the process of changing places. Also, there will be some filters by year, region and so on. Such a graph can help to analyse from what regions/countries people more likely to come to Barcelona (=what is interesting/different for them comparing to their location) and what regions/countries people more likely to go from Barcelona (=what is better in other regions).

Lectures required: Graphs, D3.js, More interactive d3.js

Technologies required: D3.js, jQuery, Bootstrap

MVP (Minimum viable product)

The minimum viable product that we are intending to deliver consists of a clear story, respectful communication, and data visualizations that aim at securing a clear overview for the visitor. Our visualizations should help visitors have an easier time with the decision-making process of moving to the city of Barcelona. For this purpose, we will create a one-page website that will contain all the conclusions backed up with the visualizations and their functionalities proposed in the section 'Visualizations'. Also, we will try to enhance our visualizations in terms of heat maps and sliders for acquiring more interactivity, thus, enlarge the user's engagement on the visualizations.