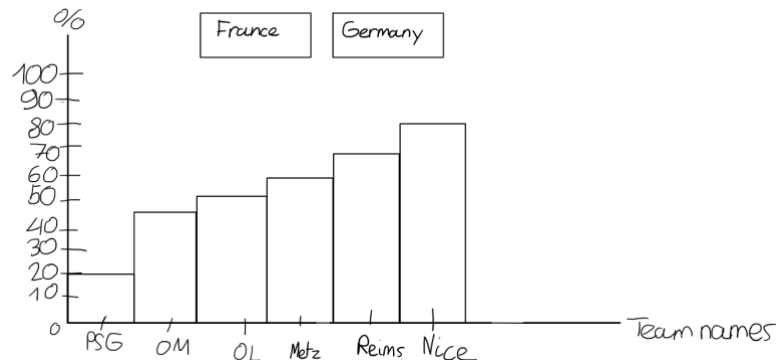


# Milestone 2

This document is structured in the following way: We present screenshots of the sketches we will be using to structure our website and below each picture we include what we aim to show with each visualization. Then we have a bonus idea for a more challenging visualization which is not necessarily going to be included in the final version of the website, the course material upon which we are going to rely our development methods and, finally, the tools that we are going to use.

## Barchart with performance predictability per team



In this first visualization graph, the aim is to show how predictable is the performance of the teams in the different European leagues. The idea is to use the data from the different betting companies we have in our dataset and look at how they had decided on the coefficients of the results of each match (Win - Draw - Lose). The lower this coefficient, the more confident the bookies are on that result. We can then compare with the actual full-time result of each match and see if the bookies were right or not.

We want to do this for every one of the major leagues in Europe, and make the visualization interactive, so that the user can pick the country/league using a set of predefined buttons. This way it will be more evident to the eye, which countries have the most "safe to bet" teams.

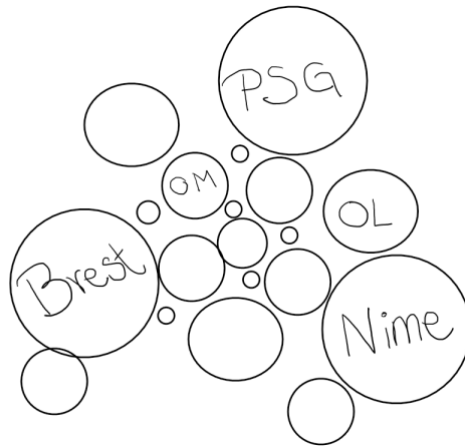
## Map with most accurate bookie predictions



The idea here is that we'll have a static image of Europe and the country's color shifts from light to dark depending on the accuracy of the bookie's predictions for this country's league. This will provide the user with an easy guide to select on which country's championship they'd like to bet on.

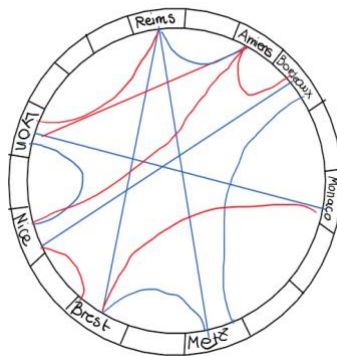
# Milestone 2

## Metric bubbles



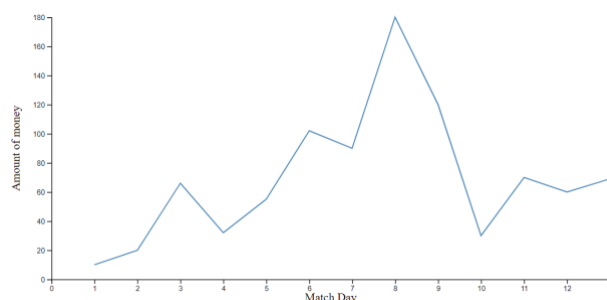
The idea here is that we'll have a small variety of metrics (goals scored, goals conceded, yellow cards etc.) and a chart like the one seen below which will represent the available data for this metric (the more the bigger the bubbles). This way we aim to see how different teams perform and if there is a small correlation between these metrics.

## Edge Bundling



The Idea here is to use a circular edge bundling schema to show the different rivalries and typical results between two teams throughout the years. We would have a circle containing the teams of a championship on the edge, and different lines connecting teams that either have a tendency to win or lose against another team (using different colors). This way we can see patterns of certain rivalries or interesting other information that can relate to the historical rivalries of the teams.

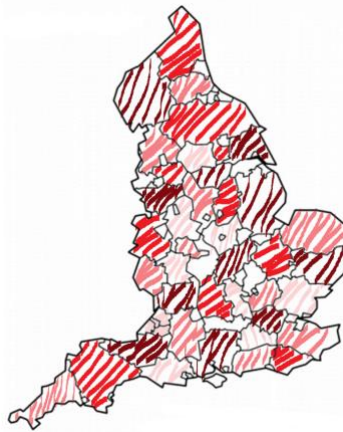
## Diagram with how profit evolves depending on investment strategy



# Milestone 2

The idea here is to give the user the option to see for himself how different betting strategies work. For example, one strategy could be always following the bookie advice and bet all of your profits or do the exact opposite, meaning always bet against the bookies. The user will select his initial amount of money and investment strategy from a menu and the graph will output the results.

## BONUS: Map with longer distances



The idea here is to have a map with the location of every team in a country and showcase which team has to travel the most each year and how that affects its performance in the championship.

## Course material

To complete our project, we intend on making full use of the course material. For starters, we will preprocess the data following the guidelines presented on the data lecture in order to feed them into our visualizations. To create these visualizations and make them interactive we will be using D3.js, a library extensively presented in the course too. As shown above, we intend on including maps in our website so the respective lecture will be very useful and in general we will try to follow the do's and don'ts and the other tips that the professor talked about in the last lecture before the Easter break.

## Tools

Concretely, the tools that we intend to use to build our website are these:

- Web development and visualizations
  - HTML
  - CSS
  - Javascript
  - D3.js
- Data preprocessing
  - Python
  - Pandas
  - Numpy
  - Matplotlib (for quick visualizations during development)