

Bike Data Final Project

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We chose to use an API and a different website for Beautiful Soup to gather information from. The API we will be using is api.citybik.es and the website that we will be using Beautiful Soup on is [copenhagenize index.eu](https://copenhagenizeindex.eu). Specifically, we will be utilizing the article titled *The Most Bicycle-Friendly Cities of 2019*.

From the API, we will be collecting data about the cities that bikes are located in, including the kind of bike, the city and country that they are located in, and the latitude and longitude of the specific bikes. We will be using that information in hand with the information we collect from *The Most Bicycle-Friendly Cities of 2019*, which is a list of cities and their scores of how bicycle-friendly they are.

With the data that we collect, we will be calculating the cities and countries that have the most bicycles within, and using that information in corresponding cities from the *The Most Bicycle-Friendly Cities of 2019* to see if the list should be updated or not. We are also interested in finding out the most common type of bicycle found in the world.

To visualize our data, we will be using the matplotlib visualization package.

We will create a pie chart to visualize the distribution of types of bikes across the world. With that, we will be able to easily discern what company has the most and least bikes distributed across the world. Additionally, we will use other data to create a bar chart to demonstrate which cities both have the most bikes and are the best for biking.

The work for this project will be split 50/50. Specifically, Mark will take the lead with the Beautiful Soup portion of the project and Jordan will lead on the API section. Both partners will be present and creating active contributions to both parts, but one will take the lead. Additionally, both partners will create one data visualization.