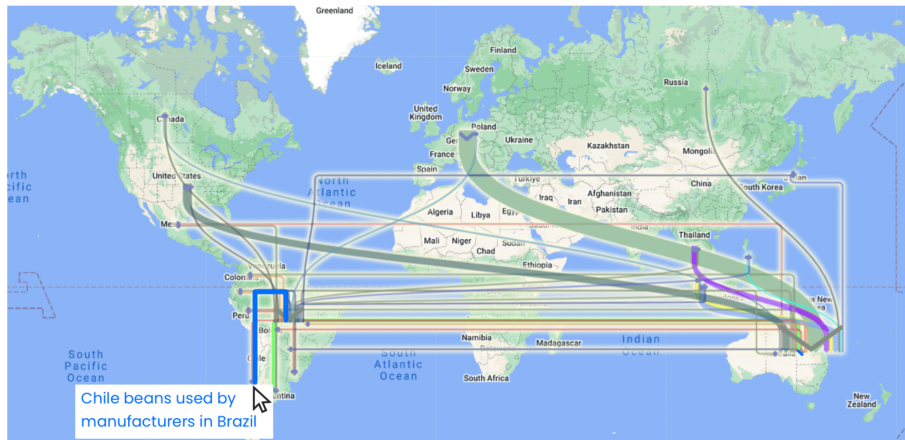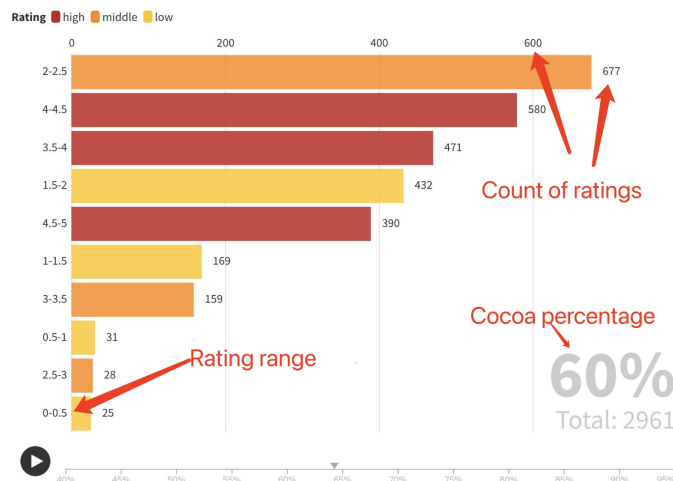# Milestone 2

Team: the-3-musketeers

Project goal:

- Explore the factors that impact chocolate quality.
- Assist chocolate producers in their production decisions.
- Help customers learn more about the chocolate industry.

Visualizations:

1. **Flow map (MAP with SANKEY)** visualizes the flows of cocoa beans from certain origins to be used by manufacturers in certain locations.

   - **Interactivity**: With the mouse moving, users can check the origin and destination of each flow. It could also display how many times this routine has been chosen.

   - **Function**: The graph provides a visual representation of the distribution of cocoa bean origins chosen by chocolate companies. By examining the graph, we can identify patterns that may exist in nearby manufacturers preferring beans from similar locations.

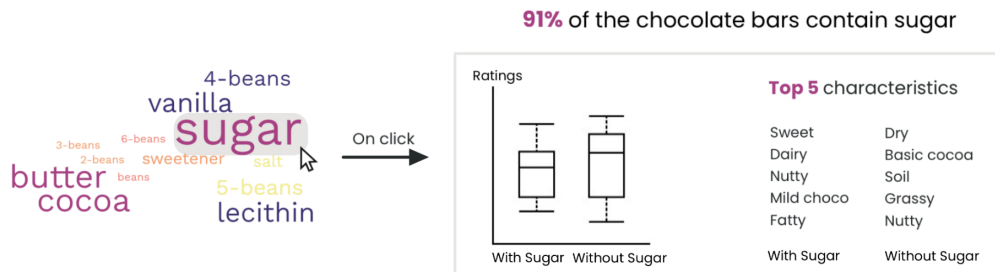   - **Technologies used**: D3.js, Leaflet.js

2. **Race bar chart** displaying rating changing over cocoa percentage in the form of an animated bar chart.

   - **Interactivity**: It's a dynamic animation. Users can pause the animation, or select a specific cocoa percentage then it will be static.

   - **Function**: This graph gives chocolate producers a better understanding of the relationship between the rating score and the cocoa percentage. Helping them to make further production decisions about cocoa ratios.

   - **Technologies used**: D3.js

3. Word cloud showing the comparison in the ratings and characteristics of chocolate bars based on specific ingredients and identifying patterns in how certain ingredients affect the overall rating of a chocolate bar.

- ○ **Interactivity**: By clicking on a particular ingredient in the graph, users can access detailed information about the ingredient, such as its popularity in usage, its impact on ratings, and its influence on flavors.
- ○ **Function**: By analyzing this graph, manufacturers could use it as a guide to design chocolate bars that meet consumer expectations for flavors and ratings.
- ○ **Technologies used**: D3.js

Extra ideas:

1. **Radar plot** with each spoke representing one of the most memorable flavors (characteristics).
   - ○ **Interactivity**: Users select different combinations of ingredients, then the radar plot shows the predicted score of different flavors.
   - ○ **Function**: Help chocolate producers to decide which ingredient to be applied. It will also help them to weigh up the different flavor options.
2. **Word clouds plot** showing the top 10/15 frequent characteristics in the dataset
   - ○ **Interactivity**: When clicking on each characteristic some additional information will appear.
   - ○ **Function**: Help chocolate producers to weigh up the different flavor options. It also helps them to be aware of the chocolate flavors of most of their competitors on the market.