**Feedback** : You have a lot of different ideas. Some of them could lead to a great data story in the end, but you need to refine them more and look at their feasibility given the data. 1)There are too many different ideas in this proposal. You will need to choose one of them if you want to pursue this proposal. I think the idea of linking beer consumption with events lacks a bit of creativity (other groups have this idea and it was in the lecture). However, I think that the COVID-19 point-of-view could be very interesting. You could choose also other events such as the “craft beer movement” that could be interesting to analyze with the dataset. 2)Again, you are cramming too many different ideas into this one. The most creative idea in this is the brand loyalty aspect. However, you will need to make an initial data analysis to make sure that you can identify these brands or breweries of interest. 3)The craft beer approach could also be interesting, but you need to define it more clearly. Also, I’m not sure that you have enough information in the data to determine the number of liters produced. This is a very interesting and unique approach! However, I’m not sure about the feasibility of this, you will need to make an initial data analysis to find you have enough information in the dataset for this idea. This idea is a bit too simplistic. A recommendation system or sentiment analysis are well-known problems that could be solved with “simple” known models, it would not make an interesting data story. Your project mentor throughout the semester will be Beatriz Borges : beatriz.borges@epfl.ch. For future discussions specific to your P2 and P3 deliverables, you are encouraged to be in touch with your mentor.

**Idea 1:** Time evolution of consumer’s preference and spatial discrimination

How effective are seasonal promotions, such as Oktoberfest or St. Patrick's Day, in influencing beer sales and consumer preferences? What role do beer events and festivals play in promoting specific beer brands or styles, and how have they evolved over time? We could look at the number of rating over time to see if their number increases or if the ratings become more positive just after these events.

Have there been emerging trends in beer styles, and which styles have demonstrated long-lasting popularity? What were the short-term and long-term effects of the COVID-19 pandemic on the beer industry, including the impact of lockdowns, restrictions, and changes in consumer behaviour on beer sales and preferences?

What factors contribute to regional or cultural preferences for specific types of beer, and can we identify regional favourites by analysing rating patterns?

**Idea 2**: What kinds of relationship breweries and consumers have?

Which breweries consistently produce the highest-rated beers, and are there discernible patterns or trends among these top-performing breweries? As an example, we can explore the potential connection between these "top breweries" and the extent of their popularity, which can be quantified by the number of ratings they receive.

Do consumers exhibit brand loyalty in the beer market, or do they tend to experiment with different brands over time? We could for example analyse whether users always evaluate the same breweries over time.

What are the current growth trends in the craft beer industry, and how do they compare to the mainstream beer sector in terms of market share? Are consumers showing a preference for small, local microbreweries, and how are large macro breweries adapting to this trend? We can distinguish between microbreweries and macro breweries based on the variety of beers they offer. While the actual distinguishing factor is the volume of liters produced, we can argue that breweries producing fewer liters will likely offer a more limited selection of beers. Furthermore, we can investigate whether beers from microbreweries receive higher ratings and also analyse the geographical proximity between consumers and breweries.

**Idea 3**: Beer and health

How have health trends influenced the beer industry, including the rise of non-alcoholic beers, beers with functional ingredients, and wellness-focused branding? Given data that we have, we could only analyse the first question by looking at the time evolution of the alcohol content of the beers that are the most rated.

Idea 4: Beer’s type, specificity and food

What can sentiment analysis of user reviews reveal about consumer attitudes toward different beer brands and styles, and are there specific aspects that consistently receive praise or criticism? We can conduct an analysis that involves assessing the appearance, aroma, and user-assigned taste ratings to identify recurring strengths and weaknesses in different beer styles. Additionally, we aim to provide beer and food pairing recommendations by leveraging user reviews and ratings, with a specific emphasis on highlighting which beers complement various cuisines or dishes most effectively.