Data analysis of GreenPlate Club

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Dataset description

I analyzed the <u>insights</u> of **GreenPlate Club**, an online community that targets plant-based cuisine lovers.

Every day expert chefs share plant-based recipes which are easy to do at home. The users can repeat those recipes and publish the results on their page to inspire the other members of the community.

Users can also take part in themed challenges, where they gain points per each recipe they cooked and shared. The challenges lasts from 4 to 12 weeks and can be done at any moment, giving flexibility and fun in improving cooking skills and attracting more interest in a sustainable and aware approach to food.

Workflow
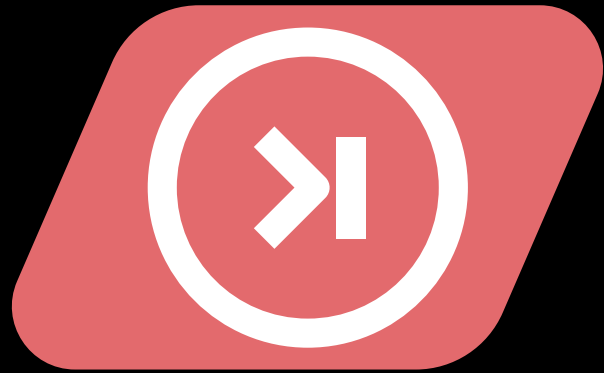
1.Data Cleaning

On Jupiter Notebook the null and unique values have been checked, entries names have been changed in the column country for a better legibility, the columns cooking_date and subscription_date have been changed in DATE format.
The dataset was now ready to be imported in a relational database and then start the analysis with SQL.

2.SQL queries

My queries have been focused on finding out if and how GreenPlate Club grew during the years both from the user and recipe sides. I analyzed:
- user subscriptions and interactions, taking into account also their country of origin
- recipes rating per category and level
- statistics of the challenges per platform

3.EDA

My exploratory data analysis with Python have been focused on:
- the average rating of the recipes
- the monthly trend of subscriptions and recipes watched, checking if during the months with more subscriptions there were also more interactions with the recipes

3.Data viz

I created two interactive dashboards with Tableau:
1. Platform growth
2. Buyer personas - I selected 4 clusters of users according to their favourite recipes, to better target their interests.

Database structure

Users

ID_U	user_uuid	subscription _date	language	country	platform	cooking _date	chef_ id	challenge_id
🔑								

Recipes

ID_R	recipe_id	level	category	stars	chef_id	challenge_id
🔑						

Database legend

cooking_date
Date when the users posted their recipe version

user_uuid
User identification number

category
Recipes category

chef_id
Chef identification number

language
User language

level
Recipes difficulty

challenge_id
Challenge identification number

country
User nationality

subscription_date
Day of subscription of the user

platform
Platform from which the user watched the video

recipe_id
Recipe identification number

stars
Rating given to the recipe (from 1 to 5)

Buyer Personas

Some clusters of users have been selected according to the favourite recipes, to better target their interests.

Carlotta Perego
Users who cook only vegan recipes and are interested especially in healthy food.
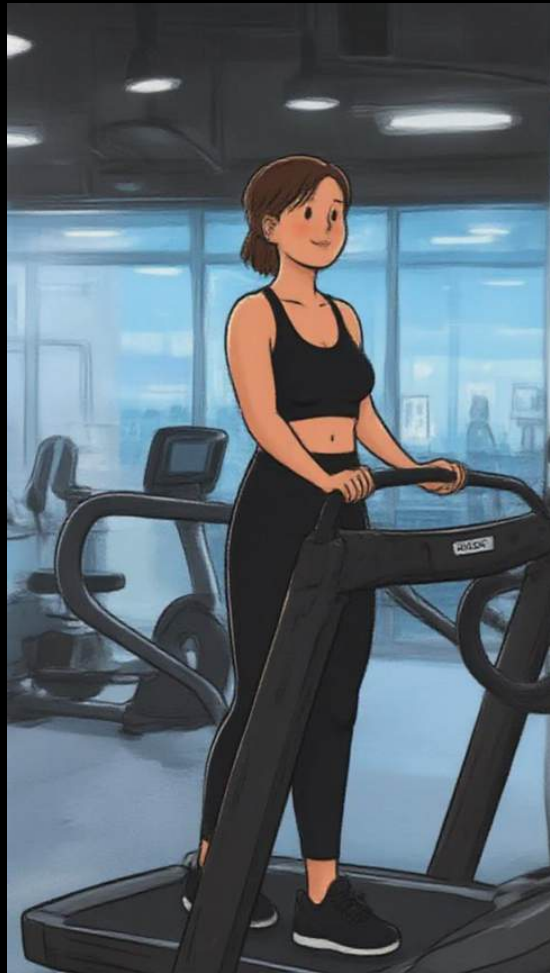[vegan and smoothie recipes]

Aicha
Curious and adventurous users who want to try new cuisines and to experiment.
[ethnic recipes]

Buyer Personas

Some clusters of users have been selected according to the favourite recipes, to better target their interests.

Tara Mc Cloud
Users keen on sport who are looking for quick recipes but also something nutritious and energetic to eat.
[breakfast and snack recipes]

Nunzia Caputo
Users who spend most of their time at home and prefer to cook all their meals from there.
[lunch and dinner recipes]

Future strategy

First of all, in the dataset there is a gap of information. The subscriptions record stop at 2022, whereas the interaction with the recipes continues until 2023. Also, apparently in the first year of the platform (2020) there has been no interaction at all.

The platform has registered a stable growth during the years, but there has been a slight drop in the subscriptions in 2022. During the months with more subscriptions there have not been more interactions with the recipes, it might be that new users need more time to be retained and be really engaged.

1 → A new strategy could be to create more **engagement activities** with the users, both the new and the old ones. The most chosen platform has always been the tv, so the activities/challenges should be tailored for this device.

Future strategy

The most published categories of recipes are ethnic and breakfast, which are also the most successful together with the lunch category. The rating per difficulty of recipe changes according to the country of origin.

The recipes with the highest rating are not the ones with more interactions (like the breakfast category), but it is also because they are also the ones published more on the platform.

The categories vegan and smoothie are the ones with the lowest number of posted recipes, but also the ones with the highest average rating in all the categories.

2 → A new strategy to improve che interactions could involve the posting of more **vegan and smoothie recipes** which have good premises, also to better target the Carlotta buyer persona. Following this, since the **ethnic** category has always been the most successful it is advisable to **keep publishing** this kind of recipes. Instead, since the **breakfast** category has already many postings but few interactions, it is better to **not update it**.

Future strategy

There are good growth prospects according to the buyer persona on which invest more. The most active users come from Italy, followed by United Kingdom (but are also the subscribers with the highest number) and France.
All the country origins share the same favourite recipes per rating in the same categories with this order, but for different levels: ethnic, lunch, dinner.
- In Italy the preferences for advanced recipes are only for dinner
- In France there are not favourite advanced recipes in the first 3 categories but only for the others: smoothie, breakfast, snack
- In United Kingdom both ethnic recipes and dinner stand out in the advanced level for the amount of preferences. But the preferences per category of recipes also changed during the years.

3 → A new strategy could be to **target users from other countries**, instead of increasing the subscriptions from France which are the users with the lowest numbers but also the less active ones.
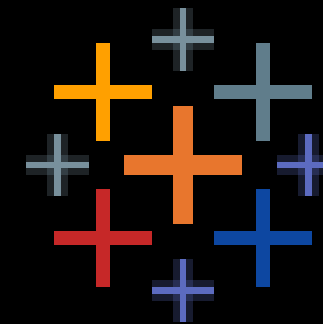
SQL queries URL

Jupiter Notebook URL

Dashboards URL:
1. Platform growth
2. Buyer personas