Group 31

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Data

Introduction of the data

This is a craft beer dataset from the US containing 2,410 craft beers and 510 US breweries. The data is split into two tables: ‘Beers’ (which contain information on each particular beer) and ‘Breweries’ (which provide information on beer manufacturers), both are linked by an “id”, which we will see below. The data was parsed and downloaded from Kaggle and originally collected in January 2017 from CraftCans.ca.

Description of tables and columns

Table ‘Beers’

Column Name	Description	Type
row	Row number	int
abv	The alcoholic content by volume with 0 being no alcohol and 1 being pure alcohol	float
ibu	International bittering units, which describe how bitter a drink is	float
id	Unique ID	int
name	Name of the beer	varchar(99)
style	Beer style (lager, ale, IPA, etc.)	varchar(99)
brewery_id	Unique identifier for brewery that produces this beer	int
ounces	Size of beer in ounces	float

Table ‘Breweries’

Column Name	Description	Type
brewery_id	Unique identifier for brewery that produces this beer	int
name	Name of the brewery	varchar(99)
city	City that the brewery is located in	varchar(30)
state	State that the brewery is located in	varchar(2)

Data origin

Our dataset originated from a Canadian archive system webpage, which features countless beer entries:

> “ Craftcans.ca is a Canadian craft beer blog celebrating the best of Canadian craft beer design. Having worked in the UK and Canadian craft beer market for the past few years working in bottle shops, craft breweries and now for a mobile canning service, the founder has developed a passion for beautiful beer branding and packaging design.
>
> The craft beer market is becoming increasingly saturated and often a consumer’s choice comes down to what looks the best. The purpose of this blog is to celebrate the artists, illustrators and designers who are elevating the craft beer market and the craft breweries they represent to the next level. Great beer deserves great artwork and great artists deserve recognition. “

The original web focuses on the outlook of beers, namely, pictures and images. However, our database project will take a more informative approach. From beer taste attributes to brewery locations. We are also “exploring” the world of beer, albeit in a different fashion.

Other Information About our Data

Since this is a static dataset downloaded from Kaggle, it is highly unlikely that we will encounter any dynamic data change. Or, at the very least, in the near future or for the duration of our project. If the data were to be updated, it would be manually via our interface.

Data source

https://www.kaggle.com/nickhould/craft-cans#beers.csv

Application design

Purpose and Idea

One of our group members has a friend who devotes his time to discovering and tasting great beer. He is a frequent visitor of numerous beer review websites, and this particular hobby of his sparked our inspirations. Apart from him, there must be a lot of people out there who are sommeliers of good beer. We want to build an interface for these beer tasting hobbyists, as well as introduce and bring in people who are not so familiar with beer. We did some research and found a dataset on Kaggle which lists numerous craft beers, their brewers, taste, locations… (as specified above). We want to build a website which allows users to explore the cool and fun world of beer, from selecting preferences to generating surprises and intriguing unknowns.

Functionality

Search & Query

- Search beer by name
- Search beer by brewery
- Search according to taste (bitterness, alcohol percentage, type)

Explore & Experience

- Find breweries near me
- Beer recommendation generator (Random Beer Generator)

Feedback & Ratings

- Add beer review/rating
- Edit beer review/rating
- Link with reviews and ratings (if we are able to find additional party websites or datasets that can join with our current one)

Interface

We would be mainly using a web page to browse and interact with our dataset. This includes setting up our own simple server to host our database and store web pages. All of these would mainly be built using front-end and back-end languages such as Javascript, HTML, CSS, Python, Php, and even using UI libraries like React.

Main page

- User can search for beer or brewery through a textbox, and select the criteria (e.g. name, brewery, style)
- Displays the search results below.

Locate nearby brewery page

- Textbox to allow the user to enter a location to search.
- Display the nearby breweries using Google Maps API on a map.
- Display a list of nearby breweries.

View beer review/rating page

- Display the detailed information of the beer such as beer name, alcohol content, international bittering units, brewery name, brewery city/state, review and ratings.
- Users can click on an “add review” button to add a new review to this beer.
- Users can click on an “edit” button beside the review to modify the review, and click “save” to update the review.

Time schedule

1. Setup MySQL database and import data
2. Create website skeleton code and connect with database
    2.1. Create web page layout and design
3. (Parse additional data, such as review websites and rating datasets)
4. Add functionality into the website
    4.1. Search beer by name
    4.2. Search beer by brewery
    4.3. Search according to taste (bitterness, alcohol percentage, type)
    4.4. Find brewery near me
    4.5. Add beer review/rating
    4.6. Edit beer review/rating
    4.7. Link with reviews and ratings
    4.8. Beer recommendation generator (random beer generator)
5. Ensure all inputs and SQL queries are secure and validated
6. Beautify UI

Discussion

Most of our initial discussions are held in our Line chat group. However, for the sake of this project, since it requires us to leave an easily obtainable record of our discussions (e.g., a link), we moved our discussions to microsoft teams. And a link to our channel is pasted below :

https://teams.microsoft.com/l/channel/19%3a4aede3859ef747cc9bbefc7d54e0845d%40thread.tacv2/General?groupId=cdd1bda4-0dbd-4311-a6f5-093c07644b26&tenantId=010281b3-d5d6-4bc8-b561-bf4794b97036

Repo

https://github.com/YorkGrizzly/Database-Project---Craft-Beer-Website