

Working Title

LoveMeSomeIceCream

Summary of Website Purpose

This website allows ice cream lovers and customers to explore information, such as ratings, reviews, and ingredients, for various ice cream flavors from four popular brands.

Dataset Metadata

Name and Authorship

Ice Cream Dataset (Version 3)

Tyson Pond

About

This dataset contains detail, images, and reviews of 241 ice cream flavors across 4 brands (Ben & Jerry's, Häagen-Dazs, Breyers, and Talenti). All datasets provided are in .csv format, and the images provided are all png formats.

Terms of Use

The site allows public access to the data set.

External Source

Kaggle: <https://www.kaggle.com/tysonpo/ice-cream-dataset>

Local Copy

Each team member has saved a copy of the dataset (including the user guide and metadata, which are saved as HTML documents) on their laptop. A copy of the dataset was downloaded from the link provided above on April 16, 2021.

Dataset details

The full dataset consists of 5 folders: bj, breyers, hd, talenti, and combined, which represents the four ice cream brand names and a combined folder. Each folder contains three files: images folder, products.csv, reviews.csv. Below are two tables: one is a table of what data types are in each .csv file and the other is a table of each data type description.

File	Data Types
products	key, name, subhead, description, rating, rating_count, ingredients
reviews	key, author, date, stars, title, helpful_yes, helpful_no, text

Data Type	Explanation
key	Product key which also matches the image name in images folder and review.csv
name	The product name
subhead	The product subheading
description	The product description from its company
rating	The average rating of the product from 1 to 5
rating_count	The number of rating for that product
ingredients	The ingredients list of that product
author	The name of that review author
date	The date of the review
stars	The number of stars in the review, from 1 to 5
title	The title of the review
helpful_yes	Number of people who find this review helpful
helpful_no	Number of people who find this review not helpful
text	The text of the review

Audience and Goals

- Ice cream lovers: they are the people who have interest in purchasing ice cream products and would like to assess which product best suits their tastes. They may be curious about the ice cream products and industry in general: some might be interested in knowing what ice creams are made out of (information about ingredients), some might be interested in knowing what brands are the most popular (from ratings and reviews), and others might just be interested in browsing through ice cream categories and looking for a product they want to try. With this website, they are expected to:
 - Browse ice cream products under filters that reflect their personal taste, so that they would be able to choose the next ice cream brand/flavor they want to try.
- Ice cream vendor: they are the people who select brands and flavors of ice cream to be sold at places like supermarkets, ice cream trucks, and vending machines. They would be interested to know about the ratings and reviews of the ice cream products so that they can maximize the revenue and profit of the products they choose to sell. With this site, they are expected to:

- Access the popularity of a certain ice cream product by the rating scores and reviews, so that they can determine ice cream products that can be sold for higher revenue.
- Analyze why certain products are more popular/unpopular by looking at the most common words in the reviews so that they can use the same standard to predict whether certain new products should be sold while there are still no reviews available.
- Product manager at ice cream companies: they are the people who are interested in seeing which products are the most popular ones across different brands or among a specific brand. They would like to also see if there's any particular trend in the customer reviews that helps identify the secrets of best-selling ice cream products. They might be expected to:
 - Access the average review stars of one or multiple ice cream products: for the purpose of comparing what the customers think of different kinds of ice cream and identify the ones with good reputations among shoppers.
 - Finding citable graphs or data regarding ice cream reviews: for the purpose of making presentations for their companies or fitting models on the data to make inferences on what kind of ice cream products would be the most profitable.
- Food magazine editor: They are the people who are curious of what is the latest trend in ice cream. They want to gain enough material to write for an article about the latest ice cream recommendations. They might be expected to:
 - Find up-to-date and effective user reviews so that they can determine which ice cream is the most popular or most praised one, thus recommending it to the customers. And also add those reviews to the article for credibility.
 - Quickly get the product information and images so that they can add details for the ice cream they choose to recommend and give the readers a more specific understanding of the product.
- Parents: They are the ones who are interested in the ingredients of each ice cream so they can provide their children with a trusted and safe product. They might be expected to:
 - Access the ingredients of each ice cream that the company reported to ensure that there is no allergenic food for their children.
 - Check the user review to find out any unwanted health issues with a specific ice cream in order to eliminate the ones that may cause safety concerns.
- Food Inspection Department: they are the people who are interested in inspecting the quality and nutritional facts of different kinds of ice cream and see if this information matches what the companies reported. They might be expected to:
 - Access specific nutritional information of ice cream: for the purpose of checking whether there is any inaccurate or misleading information.
 - Download citable data: for the purpose of saving evidence for later if they suspect there might be any problems with the reported information from ice cream companies on their ice cream products.

User Stories *(with Acceptance Criteria as hollow bullet points)*

- As an ice cream lover, I want to find the ingredients and reviews for each ice cream so that I can find the “best” kind of ice cream according to my taste.
 - Displays the ingredients for each ice cream
 - Displays the reviews (from the most helpful to least helpful) for each ice cream
 - Displays the rating for each ice cream
 - Rank the ice creams in term of their rating
- As an ice cream vendor, I want to check the reviews and number of stars for each ice cream so that I can select a few kinds of ice cream products that would be popular among my target customers.
 - Correctly ranks ice cream products in terms of rating scores
 - Users should be able to rank products under filters that specify the brand, the desired range of ranting scores, or keywords in the product name
- As a product manager, I want to download review-related data and graphics on ice cream products so that I can make comparisons and draw inferences on my own about what would be the most reputable kind of ice cream for my company.
 - Allow a download version of the ice creams’ detailed information on the page.
 - Test searching ice cream with a specific brand
- As a food reviewer, I want to set the date range on ice cream reviews submitted so that I can get the most current reviews on different ice cream products and write interesting review articles for my readers.
 - Allow displaying the reviews in terms of date range
 - Test searching for ice cream by its product name. If non-existent, an error message should occur.
- As a parent, I would like to filter on certain ingredients and know the ice cream products that do not contain these ingredients so that my children can be free from any potential allergenic ingredients.
 - Search filters should contain an option to exclude products with ingredients specified by the user (via checking boxes in a list of ingredients or text input).
- As staff at the Food Inspection Department: I would like to download ingredient information of ice cream products so that I can make sure they are all correct as what’s reported.
 - Allow downloads of any citable source data on ice cream products’ ingredient information from the website.

Personas

Name: Josh Belloni

Descriptor: an ice cream lover

Quote:

“I always ask myself, what’s the best kind of ice cream out there for me? These ice cream companies offered a wide range of selections these days, but as an ice cream zealot, I make it my mission to really identify the optimal choice for me. “

Who is it?

Josh is a 20-year-old Carleton raising senior from Colorado, majoring in Computer Science and Art. He is an ice cream enthusiast mainly because his father is a local ice cream vendor. Ever since childhood, his father would bring him new ice cream flavors and hear about his opinion. Influenced by his father, Josh slowly developed a large interest in different ice creams. In addition to ice cream, Josh also likes drawing and aims to become a professional artist after college.

What attitude?

Josh would use our site in order to find out the ice cream product that he wants to purchase the next time he goes to Family Mart. He is most interested in searching for products that are chocolate flavored, are popular among customers, and do not contain wheat (as he has gluten intolerance). He cares about whether the website's search function is easy to use and can properly filter products that match the preferences he listed.

Which behavior?

Josh is a college student with the goal of being able to identify the "best" kind of ice cream according to the taste preferences he puts in. Josh has some patience in poking around the website until he finds what he wants considering he's very enthusiastic about ice cream. But he is also very opinionated that if he sees the resulting products aren't what he likes in real life, he would be very upset and leave the website. So we want to be able to narrow the search for him but also leave a few options open as the "best" ones for his search.

Name: *Nina Tullio,*

Descriptor: a product manager at the Ben & Jerry's

Quote:

"The research I do is all about product growth for the company: it's about how a product stands out among other similar ones and how customers' review could be related to the sales of a specific product. I use data to make inferences and provide suggestions for my superiors on what would be the most profitable products for our company."

Who is it?

Nina is a 32-year-old project manager at Ben & Jerry's. Originally from New York, Nina obtains a Master of Business Administration at Harvard University. Her first job is as a marketing consultant at a major tech firm, which is a great job opportunity that all her friends desired. However, Nina soon found herself not suitable in such a tech company since she just couldn't bear dealing with computers, phones, and apps all day. Luckily, she was later offered a product manager at Ben & Jerry's, which, as a big fan of Ben & Jerry, Nina took the job without hesitation.

What attitude?

Nina is responsible for looking at the company's sales data and providing suggestions for Ben & Jerry on what products should be manufactured in larger (or smaller) quantities, why products are popular (so that they can better design new products), and how they can accurately advertise their products. Since she is making decisions for the whole company, she has to be very rigorous, so she cares about the source and accuracy of the data she obtains. She is also very good at analyzing data, so she cares about whether the website would allow her to download the data in the desired format (she wants .csv, not .xlsx) or interact with the data. Neat display of data on the website would be a plus for her, but it is not of primary importance if she can download the data and play with it herself.

Which behavior

Nina is a curious learner who's very aware of the power of customer reviews. She's not very patient with websites because she believes she can always find data elsewhere with her data scraping skills. She expects information provided on the website to be relatively clean and complete which will make her job easier when she's making inferences on the data. She is also very careful in that she questions the validity of the data quite often, so she would like to see solid sources for all the data provided on the site.

Collaboration Plan

We will communicate regularly and check in with each other through Zoom on the progress we made individually if we were to assign different tasks for each member to work on individually in an offline setting. The check-in meetings could be short or more lengthy depending on whether people have questions for the whole team or just ran into problems that they can't solve individually. If we were to work on the project during synchronous meetings, we will make sure to discuss our goals at the beginning of the meeting and make decisions as a team after considering every members' opinion. We'll remind each other of the due date for each project and work persistently to make sure things could be done in a timely fashion. During the meetings, we will push each other to be more active and help each other on challenging tasks so we can make an effective team.

Currently, we have not yet decided the specific roles for each member, but we'll soon have a better picture of what everyone should be doing as the project progresses. In the meantime, we'll work as a whole on the assignments on shared Google Docs and figure out each others' strengths. For any of the work done that's worth reusing in the future, we will push the documents to Github and make sure everyone will have access to them.