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LIS 546

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Team Craft Beer Curation Protocol

We will create a repository for data about craft beer. The data itself is easy to understand even if someone isn't a "beer person," and craft beer is popular, unique, and innovative. Potential stakeholders are people who work in the beverage industry, craft beer lovers, sociologists, and the data-hungry 21st century general public.

<https://github.com/ginaromebenson/craftbeer>

Statement of Work

Group name: Group Craft Brew

Group members: Trevor Dorn, Andrea Klinkman, and Gina Rome

Topic: We will create a repository for data about craft beer.

Audience: Our intended audience is primarily people working in the beverage industry in the United States. This dataset could be used to hone in on craft beer trends, consumer preferences, and be up-to-date on what brewers are doing in other areas of the country.

Goals: Our goals are to: (1) Create an easy-to-understand data repository of craft beer that can be used and reused by beverage industry professionals and others. (2) Apply the theory of DCI to this practical work, to strengthen our understanding of data curation protocols. (3) Establish policies and standards for future reuse by the target audience.

Open Data Sources:

- Craft beer in cans, and associated breweries:
<https://www.kaggle.com/nickhould/craft-cans>
- Breweries in the USA: <https://www.kaggle.com/datafiniti/breweries-brew-pubs-in-the-usa>

Users and User Stories

Stakeholders

- Beverage Industry
 - Beer companies can track and forecasting trends in beer, and contribute their innovations to this table
 - Marketing teams can better target advertising and promotions
 - Agriculturalists can focus on popular strains more fit to industry trends
- Beer Shoppers
 - Adventurous beer drinkers will be able to find beer they like in any region
 - Beer lovers can discover new beers with similar qualities of their favorites
- Other Industry
 - Restaurants can compare flavors with their cuisines to determine pairings
 - Companies that make other foods to complement beer, such as cheese, roasted nuts, crackers, etc, can use this to guide them in product development

User Story #1: Shop Owner

Database considered for story: <https://www.kaggle.com/nickhould/craft-cans>

Goal	User Story
Find comprehensive data in individual products available by geographic location.	"I am a craft beer shop owner and I came to this repository to see what beers are available from local breweries."
Find information about individual product characteristics.	"As a craft beer shop owner I want to know the general label characteristics behind several beers so I can provide better customer service."
Consider products based on price options.	"As a craft beer shop owner I want to know the relative retail price of each beer available in my area."

Find products by flavor profiles.	"I am a craft beer shop owner and I would like to know the Ciceronic qualities of each beer."
Search products by lifetime of availability.	"As a craft beer shop owner I would like to know if a product is a limited, seasonal, or permanent release."
Search products based on specific ingredients.	"As a craft beer shop owner I would like to know products that share the same ingredients—such as Cascadian hops or Tuscan barley."

User Story #2: Brewing Company

Database considered for story: <https://www.kaggle.com/nickhould/craft-cans>

Goal	User Story
Find comprehensive data in individual products available by geographic location.	"To grow our sales, we need to know where to focus our advertising and promotional efforts."
Find products by flavor profiles.	"To develop new innovations and stay ahead of trends, we need to know what flavors and qualities are popular."
Search products based on specific ingredients.	"To innovate and improve our recipes, we want to be able to see what other breweries are using in their beers."
Consider products based on price options.	"To price our beer fairly but competitively, it is useful to see how similar brewers in a similar region decide on their selling prices."
Search names of beers and breweries from across the country	"As a brewer, I want to ensure that the name of my business and my products are unique."
Search contact information for other breweries.	"In order to coordinate for festivals, beer gardens, farmers markets, and other happenings, I want to know who my local partners are and how to contact them so we can collaborate."

User Story #3: Beer Consumer

Database considered for story: <https://www.kaggle.com/nickhould/craft-cans>

Goal	User Story
Find comprehensive data in individual products available by geographic location.	"I like to make an informed decision about what products I can purchase in my area."
Find information about individual product characteristics.	"I want to know what makes the product unique to see if it matches what I want to drink."
Find products by flavor profiles.	"I have a specific flavor in mind, and would like to find a beer as close to that profile as possible without having to purchase it."
Find shops that carry specific products.	"I would like to find where I can purchase the products I discovered."
Consider products based on price options.	"I want to know if I can generally afford the products I discovered."
Search products by container.	"I want to know if the beer I buy will be in an appropriate format, e.g. a keg for a wedding vs. bottles or cans that will fit in my refrigerator."

The database listed above is adequate to address the first two goals—that the database is capable of sorting and displaying products by label qualities (e.g. Alcohol by Volume, International Bittering Units, and ounces) and the database is also capable of finding breweries/beers based on location. The database

<https://www.kaggle.com/datafiniti/breweries-brew-pubs-in-the-usa> supplements these locations

by providing more exact address information. Our fourth database

https://public.opendatasoft.com/explore/dataset/open-beer-database/table/?disjunctive.style_name&disjunctive.cat_name&disjunctive.name_breweries&disjunctive.country provides

international locations to further supplement this need.

Ingredient listings are not on the database, and due to potential proprietary information, it may not be easy to find a database that sufficiently covers ingredient variables. The only

Ciceronic quality the database is able to cover is the style of beer the products are (e.g. pilsner, India Pale Ale, etc.), and fails to meet finer details of flavor and aroma profiles. The database also lacks pricing for each individual product, as well as its lifetime of availability. Our separate database of <https://www.kaggle.com/applied-computing/beers> can supplement this last point, providing variables on aroma, appearance, taste, and palate.

Collection Policies

The Submission Process

Brewers submit product information to the raw data database, then curators assess the submission and communicate with the brewer regarding any missing information. The curated data would then be deposited into a clean database with the other curated data.

What We Accept

- Data must not contain any private, confidential, or other legally protected information
- Data must be deposited for open access so that others may download and reuse the data. Data that is not suitable for reuse should not be shared in the Data Repository
- Data must include adequate metadata at an appropriate level for purposes of reuse and analysis
- Data should consist of original and/or unique data from the primary source itself
- README file to be submitted with data detailing metadata

Formats to Accept

- Formats that are widely used, well-documented, and will work when opened with various types of software. File types should be saved as non-proprietary file types
- Examples include:
 - Comma Separated Value (.csv)
 - XML files (.xml)
 - Text files (.txt)

Size Requirements

- A single file should not exceed 100 GB

Preservation Information

- All work deposited here will be assigned a persistent identifier and a persistent web address (URL)
- Monitor file format for changes that might warrant transformation or reassessment
- Preservation metadata
- Onsite and offsite backup copies
- Regular virus and file corruption checks
- Frequent fixity checks using checksums

Transformations and Data Quality

Upload Instructions

- Files placed under an acceptable format (.csv,.xml,etc.) will be submitted to the repository curators for review. While files in the database will ultimately be .csv, submissions will be accepted if they are in a similar format that can be converted.
- Files will be submitted to the email address listed on the dataset's main webpage.
- Files submitted in proprietary formats will be kept in .csv format, post conversion. Original proprietary files will not be stored.
- Files will be examined for correct data and adequate metadata. If key entity data is missing from the files, it will be rejected due to missing required data as established by our schema.
- Files will be scanned by anti-virus software upon acquisition on a computer not connected to our database to ensure no malware, viruses, or phishing bots are attached to the file. After files pass our virus checks, the uploading process may begin.
- Curators will perform checksums for data during and after the curation process.

Versioning

- As file collections are uploaded, the database version will be updated accordingly as well. A point version table will be used: 1.2. The second position will be updated whenever new files are added—minor updates for adding or subtracting data, no changes to our schema. The first position is to be updated whenever an update to the schema is required—adding new entities or removing entities.
- The version will be included in the metadata of each incorporated dataset based on what version it was uploaded in or updated in.

Management of Sensitive Information

- Most data we collect will not be sensitive or personal, however, information like brewery phone numbers and addresses may be removed to protect the business owners.
- Data that could either be used to directly contact or find a person should be removed. For example, if a brewer provides their personal cell phone number, we would remove that information prior to upload.
- If any of the data contributors or subjects feel as though their privacy or safety is threatened by data collected in our repository, we would redact or remove that data.
- User access can be done through our API system.

Identifiers

- Each dataset will have a persistent unique identifier as a DOI.
 - Our DOI will follow the 10.nnnn.n format. Example: 10.3000.12
 - “10” distinguishes the name as part of the DOI namespace, “3000” will distinguish the registrant as upload to our database, and “12” is identifying a single object
 - The DOI will orient the user to the current main dataset page. Listed on this page will be links to archived older versions of the dataset.

Additional Metadata and Documentation

- File type: CSV will be the standard file provided to users.
- Depositor contact email if there are questions during the review process
- Database Version at time of upload will be included in metadata of data tables.
- Converted File Type will describe what file type the original data was submitted as.
- Updated README file after the data has been reviewed and redacted. Version specific README files maintained in archive.

Data Values

An established data dictionary will outline which attributes are necessary for each dataset to be considered complete, as well as how each attribute will relate to other attributes. Null values will be allowed in non-key categories only.

To keep data tidy and relatable, certain attributes will be required (as set by our data dictionary) so that these attributes will become our primary keys along their relative data tables.

This normalization standard will help prevent duplication of pre-existing attributes, and increase the accuracy of recall in our database as whole.

Metadata Application Profile

To express an appropriate metadata schema, we at Team Craft Beer reviewed what our observations were from our User's Stories and what precisely a user would be looking for primarily. With that in mind, we established the main elements that must be provided for our schema to function. From there, we realized that many of the elements will need to be disambiguated, thus requiring a more relational construction of how the metadata should be regarded. This would provide a simple, satisfactory means that several groups of users could easily navigate and discover the data they are seeking. For the ease of adding future innovations to this database, most of the categorical variables use a flexible controlled vocabulary, i.e., categories can be added if needed.

Structural Metadata

The structural metadata elements that our stakeholders expect are, at a minimum:

- Brewery name, head brewer(s), brewery address, alcohol by volume, volume, container International Bittering Units, price, beer style, ingredients, availability

General Table:

Field	Titles	Description	Datatype	Required
tcb_Brewery	Brewery Name	Name of the business that brews beer	Text string	True
tcb_Brewer	Brewer	First and last name of head brewer	Text string	True
tcb_Address	Brewery Address	Geographical location of brewery (street, city, state, zip)	Text string	True
tcb_ABV	ABV	Percent alcohol by volume	Two digits plus two decimal places	True
tcb_Container	Container	Physical selling container for liquid beer	Categorical with flexible controlled vocab	True

tcb_IBU	IBU	International Bitterness Unit (measurement of bittering compounds in beer)	1-3 digits	True
tcb_Price	Price	Cost per each unit of beer in USD	Numerical string plus two decimal points	True
tcb_BeerType	Beer Style	The type of beer	Categorical with flexible controlled vocab	True
tcb_Ingredients	Ingredients	List of ingredients	Text string	True
tcb_Availability	Availability	How long the beer is available for purchase	Categorical with flexible controlled vocab	True
tcb_BeerName	Name of the Beer	The unique name given to the brewer's specific brew.	Alpha-numeric String	True

Relational Tables:

Brewery

Field	Title	Description	Datatype	PK/FK	Required
tcb_BreweryID	Brewery ID	Brewery's Unique ID#	Numerical string	PK	True
tcb_Brewery	Brewery Name	Name of the business that brews beer	Text string		True
tcb_Address	Brewery Address	Geographical location of brewery (street, city, state, zip)	Text string		True

Brewer

Field	Title	Description	Datatype	PK/FK	Required
tcb_BrewerID	Brewer ID	Unique ID for	Numerical	PK	True

		brewer	string		
tcb_Brewer	Brewer	First and last name of head brewer	Text string		True
tcb_BrewerEmail	Brewer's Email	Email of Brewer	Text String		False

Beer

Field	Title	Description	Datatype	PK/FK	Required
tcb_BeerID	Beer ID	Unique ID# for each beer	Numeric String	PK	True
tcb_BeerName	Name of the Beer	The unique name given to the brewer's specific brew.	Alpha-numeric String		True
tcb_BrewerID	Brewer ID	Unique ID for brewer	Numerical string	FK	True
tcb_BreweryID	Brewery ID	Brewery's Unique ID#	Numerical string	FK	True
tcb_OrganizationID	Organization ID	Organization's Unique ID#	Numerical string	FK	False
tcb_Ingredients	Ingredients	List of ingredients	Text string		True
tcb_BeerType	Beer Style	The style of the beer	Categorical with flexible controlled vocab		True
tcb_ABV	ABV	Percent alcohol by volume	Two digits plus two decimal places		True
tcb_Container	Container	Physical selling container for liquid beer	Categorical with flexible controlled		False

			vocab		
tcb_IBU	IBU	International Bitterness Unit (measurement of bittering compounds in beer)	1-3 digits		True
tcb_Price	Price	MSRP Cost per each unit of beer in USD	Numerical string plus two decimal points		True
dcmi_IsVersionOf	Related Beer	Other unique beers current beer is built off of. Use BeerID when possible	Alpha-Numerical string		True
tcb_BrewersNotes	Brewers Notes	Quick notes a brewer may wish to include.	Alpha-Numerical string; limit of 256 characters		False

We expect the following metadata to be supplied from database contributors:

- Name of contributor, name of creator, organization (if applicable), date of creation, contact information for contributor

General Table:

Field	Table	Description	Datatype	Required
dcmi_Contributor	Name of contributor	First and last name of the person who is providing the data	Text string	True
dcmi_Creator	Name of creator	First and last name of the person who created the data	Text string	True
tcb_Organization	Organization	Optional field: If the creator works on behalf of an organization	Text string	True
dcmi_Date	Date of	Calendar date that data	Date ISO8601:	True

	Creation	was created	YYYY-MM-DD	
tcb_ContactInfo	Contact Information	How to contact the contributor (email or phone)	Text string	True

Relational Tables:

Contributor

Field	Title	Description	Datatype	PK/FK	Required
tcb_ContributorID	Contributor ID	Unique ID for each Contributor	Numeric String	PK	True
dcmi_Contributor	Name of contributor	First and last name of the person who is providing the data	Text string		True
tcb_ContactInfo	Contact Information	How to contact the contributor (email or phone)	Alpha-numeric string		True

Organization

Field	Title	Description	Datatype	PK/FK	Required
tcb_OrganizationID	Organization ID	Organization's Unique ID#	Numerical string	PK	True
tcb_OrganizationName	Organization's Name	Organization's Name	Alpha-numeric string		True
tcb_OrganizationAddress	Organization's Address	Organization's Address	Alpha-numeric string		True

Creator

Field	Title	Description	Datatype	PK/FK	Required
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tcb_CreatorID	Creator ID	Unique ID for each Creator	Numeric string	PK	True
dcmi_Creator	Name of creator	First and last name of the person who created the data	Text string		True
tcb_CreatorContact	Contact Info	How to contact the Creator (email or phone)	Alpha-numeric String		True

Dataset description metadata

- Title, URI, keywords, publication date, publisher, creator, contact point, physical coverage, update frequency, language, date and time format, current version

Title	Craft Brewery Database
URI	https://github.com/ginaromebenson/craftbeer
Keywords	Beer, craft beer, breweries, craft breweries, brewing
Publication Date	2021-06-06
Publisher	Team Craft Beer
Creators	Trevor Dorn, Andrea Klinkman, Gina Rome
Contact Point	dornrev@uw.edu , romegina@uw.edu , aklink@uw.edu
Physical Coverage	United States of America
Update Frequency	Monthly
Language	English
Date and Time format	ISO8601: YYYY-MM-DD HH:MM:SS
Current Version	Alpha 1.5

Schema Notes:

We will use the Dublin Core metadata schema (version updated 2020-01-20) for our database. Dublin Core was selected as a core basis for our metadata because it is a relatively adaptable metadata scheme. We wanted to use a schema that is adaptable, since there is no public analog schema that was readily available for beer we could find. Because of this, we have a relatively extensive list of modifications and additions to our schema.

The data will be encoded in XML, as it is accessible and universally usable.

For our purposes, we at Team Craft Brewery (TCB), will make some modifications and additions to the schema:

- Rework <DCMI_TYPE> to <TCB_BEERTYPE>. Use as a flexible controlled vocabulary standard for beer types. E.G: Pilsner, IPA, Gruit...
- Rework <DCMI_PUBLISHER> to state<TCB_BREWERY>. Relative description remains the same. If multiple breweries, defaults to the brewery responsible for packaging.
- Rework <DCMI_CREATOR> to <TCB_BREWER>. Relative description will remain the same.
- Rework <DCMI_TITLE> element to <TCV_BEERNAME>. Relative description will remain the same.
- Rework <DCMI_MEDIUM> to <TCB_CONTAINER>. This better describes the goal of describing how the beer is contained. Use of a flexible limited controlled vocabulary will be available. Multiple entries of the element may be permitted per record.
- Create <TCB_AVAILABILITY> element that uses a flexible controlled vocabulary to describe the duration of availability of the beer. Limited run, Seasonal, Permanent
- Create <TCB_SEASONALITY> as an optional element that relies on a flexible controlled vocabulary or seasons. E.G: early spring, spring, late spring...
- Create <TCB_ABV> element to describe the alcohol by volume via numerical string.
- Create <TCB_IBU> element to describe the International Bitterness units via numerical string.
- Create <TCB_PRICE> to describe the cost per unit. Entries will be a number string and up to two decimal places. Prices will all be in USD.
- Create <TCB_INGREDIENTS> element. Entries will be open string entry.

- Create <TCB_ORGANIZATION> as an optional element if distribution is provided in part or wholly by a third party organization. This will be created by an open string. E.G Retailer, Festival Organization
- Create <TCB_BREWERSNOTES> for an element that allows a brewer to leave a brief note about the beer, if they wish. This could include quick notes about proper drinking temperature, glass to present in, and other brief information of that nature.
- Specify <DCMI_DATE> will refer to the initial date of the beer's creation. Will follow [ISO8601-1](#) standard.
- Specify <DCMI_ISVERSIONOF> as optional stakeholder provided element if beer is a distinguishably new version of an existing beer by the same brewer/y.

Controlled Vocabularies

The schema has four elements that require a defined Controlled Vocabulary: tcb_BeerType, tcb_Availability, tcb_Seasonality, and tcb_Container. The vocabularies are detailed below. As noted above, all the vocabularies below are flexible, i.e. categories can be added if needed. Note that the Beer Type list is provided by Brewersassociation.org, and credit must be given to them for the creation of it. Due to time constraints, it was not possible to construct a definitive vocabulary for beer types on our own.

Beer Varieties: tcb_BeerType

British Origin Ale Styles

Ordinary Bitter
 Special Bitter or Best Bitter
 Extra Special Bitter
 Scottish-Style Light Ale
 Scottish-Style Heavy Ale
 Scottish-Style Export Ale
 English-Style Summer Ale
 Classic English-Style Pale Ale
 English-Style India Pale Ale
 Strong Ale
 Old Ale
 English-Style Pale Mild Ale
 English-Style Dark Mild Ale
 English-Style Brown Ale
 Brown Porter
 Robust Porter
 Sweet Stout or Cream Stout

Oatmeal Stout
 Scotch Ale or Wee Heavy
 British-Style Imperial Stout
 British-Style Barley Wine Ale

Irish Origin Ale Styles

Irish-Style Red Ale
 Classic Irish-Style Dry Stout
 Export-Style Stout

North American Origin Ale Styles

Golden or Blonde Ale
 Session India Pale Ale
 American-Style Amber/Red Ale
 American-Style Pale Ale
 Juicy or Hazy Pale Ale
 American-Style Strong Pale Ale
 Juicy or Hazy Strong Pale Ale
 American-Style India Pale Ale
 Juicy or Hazy India Pale Ale

American-Belgo-Style Ale
 American-Style Brown Ale
 American-Style Black Ale
 American-Style Stout
 American-Style Imperial Porter
 American-Style Imperial Stout
 Double Hoppy Red Ale
 Imperial Red Ale
 American-Style Imperial or Double India Pale Ale
 Juicy or Hazy Imperial or Double India Pale Ale
 American-Style Barley Wine Ale
 American-Style Wheat Wine Ale
 Smoke Porter
 American-Style Sour Ale
 American-Style Fruited Sour Ale
German Origin Ale Styles
 German-Style Koelsch
 German-Style Altbier
 Berliner-Style Weisse
 Leipzig-Style Gose
 Contemporary-Style Gose
 South German-Style Hefeweizen
 South German-Style Kristal Weizen
 German-Style Leichtes Weizen
 South German-Style Bernsteinfarbenes Weizen
 South German-Style Dunkel Weizen
 South German-Style Weizenbock
 German-Style Rye Ale
 Bamberg-Style Weiss Rauchbier
Belgian and French Origin Ale Styles
 Belgian-Style Table Beer
 Belgian-Style Session Ale
 Belgian-Style Speciale Belge
 Belgian-Style Blonde Ale
 Belgian-Style Strong Blonde Ale
 Belgian-Style Strong Dark Ale
 Belgian-Style Dubbel
 Belgian-Style Tripel
 Belgian-Style Quadrupel
 Belgian-Style Witbier
 Classic French & Belgian-Style Saison

Specialty Saison
 French-Style Bière de Garde
 Belgian-Style Flanders Oud Bruin or Oud Red Ale
 Belgian-Style Lambic
 Traditional Belgian-Style Gueuze
 Contemporary Belgian-Style Spontaneous Fermented Ale
 Belgian-Style Fruit Lambic
 Other Belgian-Style Ale
Other Origin Ale Styles
 Grodziskie
 Adambier
 Dutch-Style Kuit, Kuyt or Koyt
 International-Style Pale Ale
 Classic Australian-Style Pale Ale
 Australian-Style Pale Ale
 New Zealand-Style Pale Ale
 New Zealand-Style India Pale Ale
 Finnish-Style Sahti
 Swedish-Style Gotlandsdricke
 Breslau-Style Schoeps
 Lager Styles
European Origin Lager Styles
 German-Style Leichtbier
 German-Style Pilsener
 Bohemian-Style Pilsener
 Munich-Style Helles
 Dortmunder/European-Style Export
 Vienna-Style Lager
 Franconian-Style Rotbier
 German-Style Maerzen
 German-Style Oktoberfest/Wiesn
 Munich-Style Dunkel
 European-Style Dark Lager
 German-Style Schwarzbier
 Bamberg-Style Helles Rauchbier
 Bamberg-Style Maerzen Rauchbier
 Bamberg-Style Bock Rauchbier
 German-Style Heller Bock/Maibock
 Traditional German-Style Bock
 German-Style Doppelbock
 German-Style Eisbock
North American Origin Lager Styles

American-Style Lager
 Contemporary American-Style Lager
 American-Style Light Lager
 Contemporary American-Style Light Lager
 American-Style Pilsener
 Contemporary American-Style Pilsener
 American-Style India Pale Lager
 American-Style Malt Liquor
 American-Style Amber Lager
 American-Style Maerzen/Oktobertfest
 American-Style Dark Lager
Other Origin Lager Styles
 Australasian, Latin American or
 Tropical-Style Light Lager
 International-Style Pilsener
 Baltic-Style Porter
 Hybrid/Mixed Lagers or Ale
All Origin Hybrid/Mixed Lagers or Ale
 Session Beer
 American-Style Cream Ale
 California Common Beer
 Kentucky Common Beer
 American-Style Wheat Beer
 Kellerbier or Zwickelbier
 American-Style Fruit Beer
 Fruit Wheat Beer
[Link to host list at brewersassociation.org](http://brewersassociation.org)

Belgian-Style Fruit Beer
 Field Beer
 Pumpkin Spice Beer
 Pumpkin/Squash Beer
 Chocolate or Cocoa Beer
 Coffee Beer
 Chili Pepper Beer
 Herb and Spice Beer
 Specialty Beer
 Specialty Honey Beer
 Rye Beer
 Brett Beer
 Mixed-Culture Brett Beer
 Ginjo Beer or Sake-Yeast Beer
 Fresh Hop Beer
 Wood- and Barrel-Aged Beer
 Wood- and Barrel-Aged Sour Beer
 Aged Beer
 Experimental Beer
 Experimental India Pale Ale
 Historical Beer
 Wild Beer
 Smoke Beer
 Other Strong Ale or Lager
 Gluten-Free Beer
 Non-Alcohol Malt Beverage

Availability: tcb_Availability

- Limited Run
- Seasonal
- Permanent
- Annual

Seasonality: tcb_Seasonality

- | | |
|--|---|
| <ul style="list-style-type: none"> • Early Spring • Spring • Late Spring • Early Summer • Summer • Late Summer • Early Fall • Fall | <ul style="list-style-type: none"> • Late Fall • Early Winter • Winter • Late Winter • Holiday: Christmas • Holiday: Halloween • Holiday: Oktoberfest • Holiday: Lunar New Year |
|--|---|

- Holiday: Cinco de Mayo

- Holiday: St. Patrick's Day

Container: tcb_Container

- Glass bottle
- Can
- Whole Keg
- Half Keg
- Pony Keg

- Party Keg
- Minikeg
- Growler
- Crowler
- Bomber

Licensing

For our database as a whole, we will be adopting Database Contents License (DbCL) v1.0 from the Open Data Commons. It will state:

Copyright © 2021 Team Craft Beer

This Craft Beer Database is made available under the Open Database License:

<http://opendatacommons.org/licenses/odbl/1.0/>.

Any rights in individual contents of the database are licensed under the Database

Contents License: <http://opendatacommons.org/licenses/dbcl/1.0/>

We are pulling some data from the two below databases. Their licensing information follows:

1. <https://www.kaggle.com/nickhould/craft-cans>
 - License: [Database Contents License \(DbCL\) v1.0](#)
 - This license is already applied to this dataset. Since our protocol builds off of this dataset, we will give proper credit to this licensing and the terms set within.
2. <https://www.kaggle.com/datafiniti/breweries-brew-pubs-in-the-usa>
 - License: [CC BY-NC-SA 4.0](#)
 - This license is already applied to this dataset. Since our protocol builds off of this dataset, we will give proper credit to this licensing and the terms set within.

Exceptions:

Should a data provider believe that they are in danger of revealing their trade secrets or copyrighted material, they may request to have the record altered and/or removed to avoid issues.