Dognition Data Set Description

Dognition (https://www.dognition.com) is a company that teaches you how to build a deeper connection with your dog by giving you an unprecedented perspective on your dog's personality and capabilities.

As a customer, you purchase the opportunity to follow detailed instructions and how-to videos about how to play 20 fun and interactive games with your dog that were created by scientists, trainers, and behavioral specialists. These 20 games comprise the Dognition Assessment. When you finish the assessment, you receive a 10-15 page report about your dog's unique personality dimension.

The Profile Report gives you individualized insight into the cognitive strategies your dog uses to interact with the world, and in-depth breakdowns of how your dog performed in each game compared to other dogs. You are also told your dog's Personality Profile, which is one of nine profiles or "dimensions" with titles like "Socialite," "Einstein," or "Maverick."

One of Dognition's primary goals is to be able to collect as much data as possible from as many different kinds of dogs as possible. Thus, they have tasked us with helping them figure out what business changes they could implement to increase the number of tests users complete on their website.   They have made the data set described below available for our *Excel to MySQL: Analytic Techniques for Business Specialization* course so that we as a class can learn how to use data analytics to make these types of actionable recommendations.

Important information about the data set:

- The 20-game Dognition Assessment assesses 5 core dimensions of cognition: empathy, communication, cunning, memory, and reasoning.
- With a few exceptions, all games are presented to customers in the same order. Customers are not able to advance through tasks or trials out of order. This rule is implemented to make it as easy as possible for participants to follow all the steps of the games correctly.
- After completing the 20-game Dognition Assessment, customers can sign up to receive additional games and activities at the rate of one game and one activity per month.
- The Dognition team ran an experiment to determine whether a promotion that gave customers free access to the first 4 games of the Dognition Assessment would entice them to pay to complete the rest of the Dognition Assessment.
- All information that could be used to identify specific users has been removed.
- More details about the Dognition data collection method can be found at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0135176 (Stewart, Laughlin, et al. "Citizen science as a new tool in dog cognition research." *PloS One* 10.9 (2015): e0135176.)

Finally, this a real-life business data set. It will be messy and have missing data!

Overall Description

The data Dognition shared with us were organized into two files with the properties provided below.

	Number of Rows	Number of Columns
dognition_data_aggregated_by_dogid	17,986	30
dognition_data_no_aggregation	177,481	30

Variable Descriptions

FIELD NAME IN DATASET	DESCRIPTION
Created_at**	Time stamp for when a human user enters the results of a dog's test
Updated_at**	Time stamp for when a human user last updated the results of a dog's test
User_ID	Unique ID for a human user
Dog_ID	Unique ID for a dog
Test_name**	Name of Dognition test
Subcategory_name**	Name of the cognitive sub-category a test belongs to (Communication, Cunning, Empathy, Expression Game, Impossible Task, Laterality, Memory, Numerosity, Perspective Game, Reasoning, Self Control Game, Shaker Game, Shell Game, Smell Game, Social Bias, Spatial Navigation).
Gender	Gender of the dog
Birthday	Birth year of the dog
Breed	Name of Breed
Breed_Type	Type of dog breed (Pure breed, mixed breed, cross breed, popular hybrid)
Breed_Group	Group that a dog's breed belongs to (Herding, Hound, Non-Sporting, Sporting, Terrier, Toy, Working)
Weight	Weight of the dog (lbs)
Dog_Fixed	Flag for whether a dog is neutered (also known as "fixed") (1=Yes/0=No)
DNA_Tested	Flag for whether a dog's DNA has been tested (1=Yes/0=No)
Dimension	One of Dognition's 9 personality profiles (Ace, Charmer, Einstein, Expert, Maverick, Protodog, Renaissance-dog, Socialite, Stargazer)
Sign_in_Count	Number of times a user signs in to his/her Dognition account
Max_Dogs	Number of dogs associated with a user
Membership_ID	Unique ID
Subscribed	Flag for whether a user has a paid subscription or not (1=Yes/0=No)
City	City of the user

FIELD NAME IN DATASET	DESCRIPTION
State	State of the user
Zip	Zip code of the user
Country	Country of the user
Exclude	Flag provided by Dognition indicating whether an entry should be excluded (reasons not documented in the current data set; (1=Exclude, 0=Don't necessarily exclude)
Free_Start_User	Flag indicating whether a user received a "free start" by getting the first 4 games for free (1=free start, 0=not free start)
Last_Active_At	Time-stamp of user's last activity in his/her Dognition account
Membership_Type	Type of subscription. 1=Dognition Assessment of initial 20 games, 2=Annual, 3=Monthly, 4=Free, 5=Subscription type of membership chosen by the user. Annual subscriptions provide the Dognition Assessment plus 12 months of subscription service (where one new test and activity are "unlocked" per month, beginning of the month after purchase). Monthly subscriptions provide the Dognition Assessment plus the subscription service billed monthly. Free subscriptions were either offered through a "free start" promotion or through the Dognition MOOC. These users have access to the first 4 games for free and can then upgrade to unlock the rest. The "Subscription" option (value of 5) is a recent test that offers the entire 20-game Dognition Assessment for free, but then allows user to upgrade to a monthly subscription.
Rating**	The answer to the question "How surprising were [your dog's name]'s choices?" Users could choose any number between 1 (not surprising) to 9 (very surprising).
Rank_by_UserID**	The chronological rank of each test a user completed (e.g. 1=first test user completed, 3=third test user completed, etc.)
Rank_by_DogID**	The chronological rank of each test a dog completed (e.g. 1=first test dog completed, 3=third test dog completed, etc.)
Total Tests Completed*	Number of tests completed by the dog
Mean ITI (days)*	Mean inter-test-interval (ITI) between each test a dog completed (in days)
Mean ITI (minutes)*	Mean inter-test-interval (ITI) between each test a dog completed (in minutes)
Median ITI (days)*	Median inter-test-interval (ITI) between each test a dog completed (in days)
Median ITI (minutes)*	Median inter-test-interval (ITI) between each test a dog completed (in minutes)
Time Diff between first and last game (days)*	Time difference between the first and last game completed by a dog (in days)
Time Diff between first and last game (minutes)*	Time difference between the first and last game completed by a dog (in minutes)

*Only found in dognition_data_aggregated_by_dogid
**Only found in dognition_data_no_aggregation