Release notes for July 2017 StatCrunch updates

Enhancements:
- A new **Featured data sets** page has been added with an initial inventory of 10 featured data sets. See page 2 for details.
- The result history has been improved with more details provided for result titles. See page 3 for details.
- A new **Randomization test for slope** applet was added that allows for resampling while tracking the slope between two variables. See page 4 for details.

Minor fixes/enhancements:
- All applets that simulate data were given an **Analyze** button that will export the simulated results into the data table.
- A second version of the Geometric distributional calculator is now available that will calculate the number of trials before the first success.
- The account renewal process has been improved.
- A new expression has been added to calculate the proportion of a column that equals a specified value: \( \text{prop(colName, value)} \).
- Various usability improvements were implemented to the statcrunch.com pages along with the StatCrunch application.
- Miscellaneous bugs with StatCrunch and its webpages were corrected.
StatCrunch has always provided a robust list of data sets shared through the community of StatCrunch users. Currently there are over 30,000 shared data sets available in StatCrunch at the [Shared data page](#). In addition to the shared data sets is a new [Featured data page](#) which contains an abbreviated list of high quality, real-world data sets.

The initial featured data sets list contains 10 real data sets that cover some high interest topics. Over time this list will continue to grow as new data sets will be added. These data sets include a detailed description and have been tagged for easy searching based on statistical topics.

Below is a screenshot of the new [Featured data page](#). As new data sets are added, they will appear at the top of this page and will likewise appear on the homepage.
Result History Upgrade

StatCrunch keeps a live result history found at the following menu location: StatCrunch > Results. This list keeps track of all statistical and graphical results that are created within the current StatCrunch session, with the ability to show previously closed results.

The result history has been upgraded to include more informative titles that can help distinguish between multiple results from the same feature. Titles now display information about which data columns were used within the result. Depending on the feature, other key pieces of information are included within the title. These result titles will additionally include hover information specifying any Where Statement or Group by variable.

Below is an example using the Movie Budgets and Box Office Earnings data set. Three statistical results shown below come from the same statistical feature: Stat > Summary Stats > Columns. The titles for each summary stats feature shows the columns of data used by the feature while additional Where and Group by details appear by hovering over the result history.
New Applet: Randomization Test for Slope

A new applet (Applets > Resampling > Randomization test for slope) has been added that performs a randomization test for a slope between two quantitative variables. The applet operates very similarly to the current randomization test for correlation applet, but tracks slope instead of the linear correlation coefficient.

Below is an example of the new applet using the Fat and calorie content for a sample of seven chicken sandwiches data set. The applet below shows 10,000 randomized simulations where the values for the Calories column are randomly assigned to values of the Fat column. The graph displays the slopes found for the 10,000 simulations with slopes highlighted in red that have a greater magnitude than the original slope between Fat and Calories.