



Featured Prediction Competition

Corporación Favorita Grocery Sales Forecasting

\$30,000

Prize Money

Can you accurately predict sales for a large grocery chain?



Corporación Favorita · 204 teams · 3 months to go (2 months to go until merger deadline)

Competition Data

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holidays_events.csv....

test.csv.7z 4.66 MB [Download](#)

items.csv.7z

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stores.csv.7z

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transactions.csv.7z

Data Description

In this competition, you will be predicting the unit sales for thousands of items sold at different Favorita stores located in Ecuador. The training data includes dates, store and item information, whether that item was being promoted, as well as the unit sales. Additional files include supplementary information that may be useful in building your models.

File Descriptions and Data Field Information

train.csv

- Training data, which includes the target `unit_sales` by `date`, `store_nbr`, and `item_nbr` and a unique `id` to label rows.

- The target `unit_sales` can be integer (e.g., a bag of chips) or float (e.g., 1.5 kg of cheese).
- Negative values of `unit_sales` represent returns of that particular item.
- The `onpromotion` column tells whether that `item_nbr` was on promotion for a specified `date` and `store_nbr`.
- Approximately 16% of the `onpromotion` values in this file are `NaN`.
- **NOTE:** The training data does not include rows for items that had zero `unit_sales` for a store/date combination. There is no information as to whether or not the item was in stock for the store on the date, and teams will need to decide the best way to handle that situation. Also, there are a small number of items seen in the training data that aren't seen in the test data.

test.csv

- Test data, with the `date`, `store_nbr`, `item_nbr` combinations that are to be predicted, along with the `onpromotion` information.
- **NOTE:** The test data has a small number of items that are not contained in the training data. Part of the exercise will be to predict a new item sales based on similar products..
- The public / private leaderboard split is based on time. All items in the public split are also included in the private split.

sample_submission.csv

- A sample submission file in the correct format.
- *It is highly recommend you zip your submission file before uploading!*

stores.csv

- Store metadata, including `city`, `state`, `type`, and `cluster`.
- `cluster` is a grouping of similar stores.

items.csv

- Item metadata, including `family`, `class`, and `perishable`.
- **NOTE:** Items marked as `perishable` have a score weight of 1.25 ; otherwise, the weight is 1.0 .

transactions.csv

- The count of sales transactions for each `date`, `store_nbr` combination. Only included for the training data timeframe.

oil.csv

- Daily oil price. Includes values during both the train *and* test data timeframe. (Ecuador is an oil-dependent country and it's economical health is highly vulnerable to shocks in oil prices.)

holidays_events.csv

- Holidays and Events, with metadata

- **NOTE:** Pay special attention to the `transferred` column. A holiday that is `transferred` officially falls on that calendar day, but was moved to another date by the government. A `transferred` day is more like a normal day than a holiday. To find the day that it was actually celebrated, look for the corresponding row where `type` is `Transfer`. For example, the holiday *Independencia de Guayaquil* was transferred from 2012-10-09 to 2012-10-12, which means it was celebrated on 2012-10-12. Days that are type `Bridge` are extra days that are added to a holiday (e.g., to extend the break across a long weekend). These are frequently made up by the type `Work Day` which is a day not normally scheduled for work (e.g., Saturday) that is meant to payback the Bridge.
- `Additional` holidays are days added a regular calendar holiday, for example, as typically happens around Christmas (making Christmas Eve a holiday).

Additional Notes

- Wages in the public sector are paid every two weeks on the 15th and on the last day of the month. Supermarket sales could be affected by this.
- A magnitude 7.8 earthquake struck Ecuador on April 16, 2016. People rallied in relief efforts donating water and other first need products which greatly affected supermarket sales for several weeks after the earthquake.