

Recruit Restaurants - Forecasting - Data Analysis - Description of datasets, distribution of visitors and reservations

- For a start, all the datasets available will be presented, for an idea of what characteristics we can analyze

Description of Datasets

Want to present the available datasets and typical values

AirREGI Reservations

- Contains information of reservations done in the Air system

Store ID: Identification of the restaurant	air_6b15edd1b4fbb96a
Visit Date: The date for the reservation	2016-01-02 17:00:00
Reservation Date: The date the reservation was done	2016-01-01 22:00:00
Visitors: The amount of spots reserved	3

Hot Pepper Gourmet Reservations

- Contains information of reservations done in the HPG system

Store ID: Identification of the restaurant	hpg_33ec1499d6b13141
Visit Date: The date for the reservation	2016-01-01 17:00:00
Reservation Date: The date the reservation was done	2016-01-01 15:00:00
Visitors: The amount of spots reserved	2

Date Information

- Contains information of dates

Calendar Date: A date	2016-01-01
Day of the Week: Which day of the week	Friday
Holiday: Whether the date is a holiday	1

AirREGI Store Information

- Contains information of the stores in the air system

Store ID: Identification of the restaurant	air_0fcdeee6c9bf3d7
Store Genre: The type of restaurant	Italian/French
Area: The area the restaurant is located at	Hyogo-ken Kobe-shi Kumoidori
Latitude: The latitude of the restaurant's location	34.6951242
Longitude: The longitude of the restaurant's location	135.19785249999998

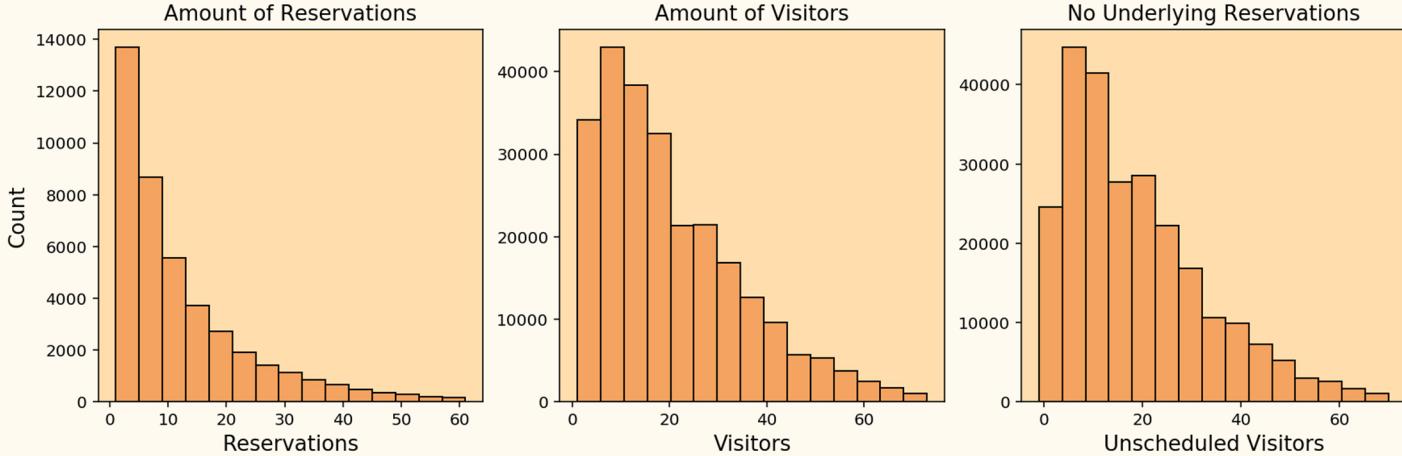
AirREGI Visitors Information

- Contains information of the visitors at restaurants for different dates

Store ID: Identification of the restaurant	air_ba937bf13d40fb24
Visit Date: A date the restaurant is open	2016-01-13
Visitors: The amount of visitors for a date	25

- To give a rough idea of how many people people, on average, visit and book reservations for restaurants, we may consider the distribution of visitor and reservation values

Histogram of reservations, visitors, and unplanned visitors for restaurants, for a given day
Outliers removed



- Amount of reservations done for a restaurant, for a given day, is often smaller than 10 but there exists cases where reservations reach larger values like 10, 20, 30 - perhaps they corresponds to holiday/weekend days
- Amount of visitors, generally, exceeds the number of reservations, implying that restaurants often receive more customers than the amount of reservations - indicates consumers seldom have to worry about a restaurant running out of places
- Further illustrating the relation between reservations and visitors, the amount of visitors with no underlying reservations are mostly non-negative, implying again that restaurants tends to receive more customers than the amount of reservations they receive
- Also note that from the amount of reservations and visitors, we can see that there exists a lot of cases where a restaurant may receive visitors without a single reservation, for a particular day - which might corresponds to weekdays or other low-traffic inducing days
- Days with high amount of visitors most likely correspond to weekends or holidays, which might explain why these cases occur much less than days with low amount of visitors (which probably, in turn, corresponds to weekdays)