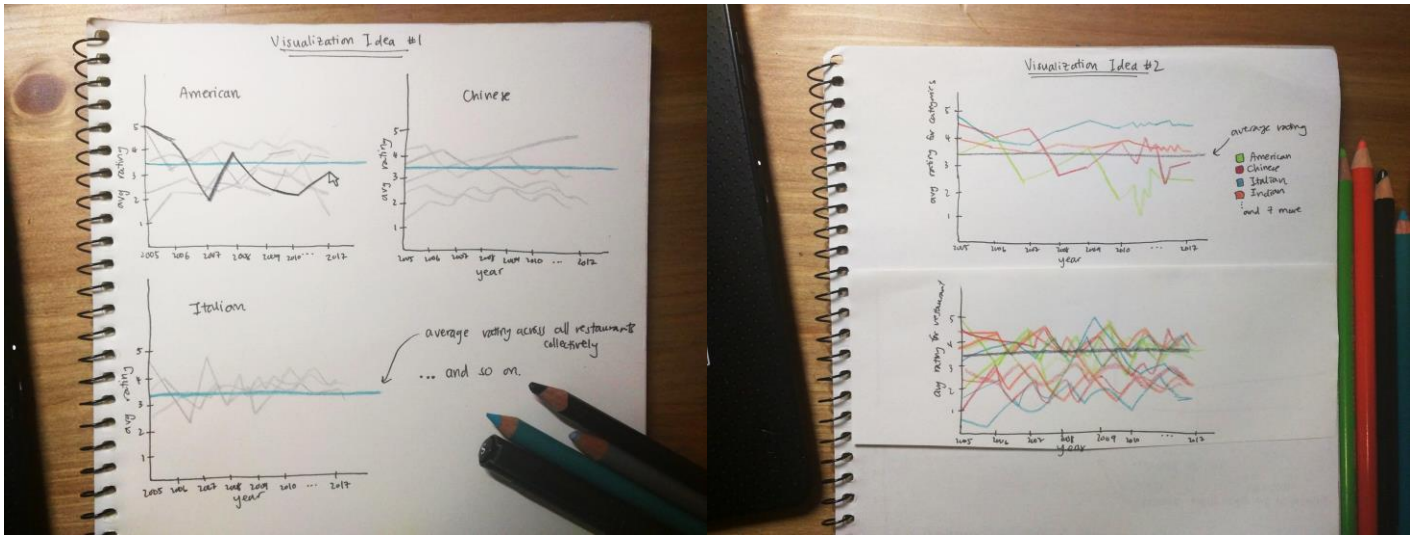
INFORMATION VISUALIZATION FALL 2017
FINAL PROJECT

Min Ah Kim
N18801634

Sketches



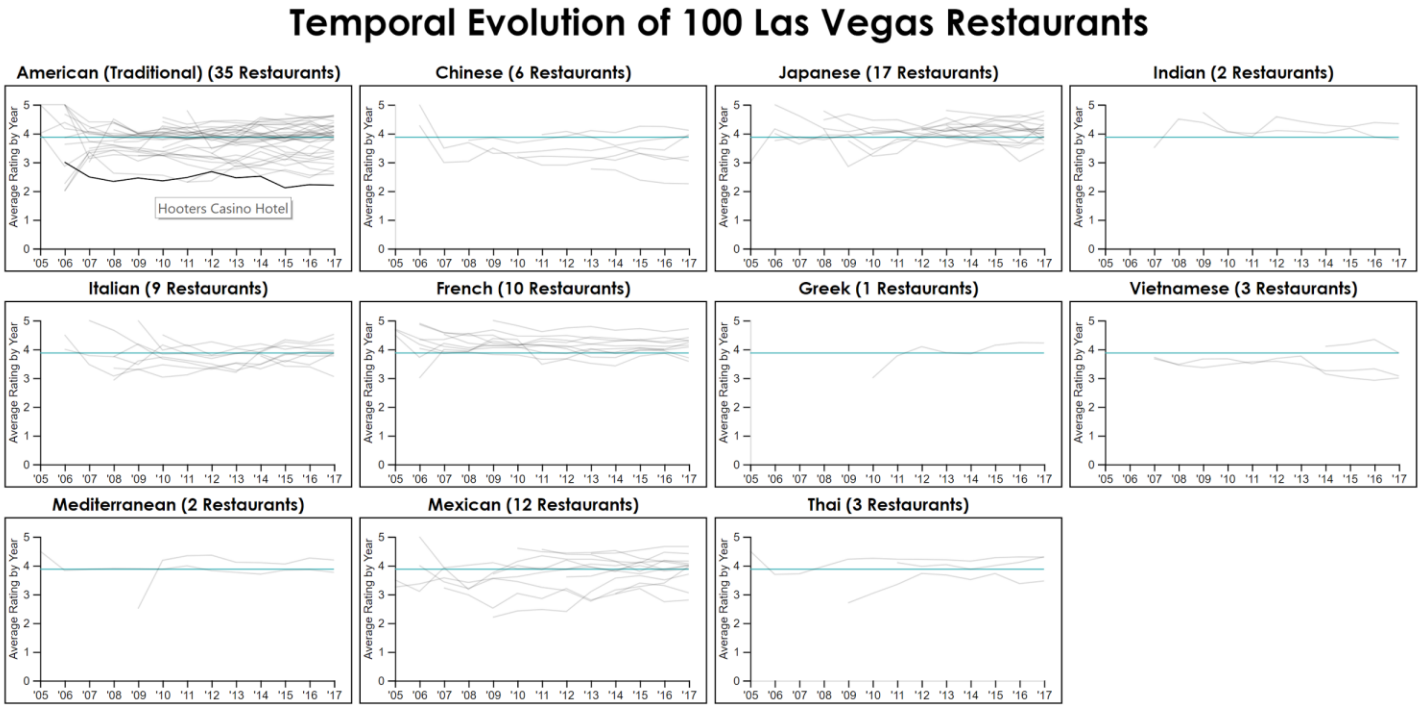
Discussion

Visualization Idea #1 shows small multiples (faceting) of the restaurant data, categorized by restaurant categories. By having a line of comparison (average rating across all restaurants) and having restaurants separated by their respective categories, this visualization shows the details of the trend of restaurant rating per category (questions 1 and 2). By counting lines in each multiple, anyone can determine the number of restaurants per category--or each multiple can simply have the number of restaurants in the title (question 3). One thing this visualization does not clearly present is the *overall* trend of the average ratings for each category; it becomes the viewer's job to mentally estimate it.

Visualization Idea #2 shows two charts that each show the overall trend for categories (question 4) and for restaurants (questions 1, 2, and 3), respectively. Each category is represented by a unique color in both the first and the second chart where the category colors correspond to each other.

Though both visualizations have their pros and cons, I decided that #1 is a better visualization since it is less cluttered and easier on the eye than #2.

Implementation



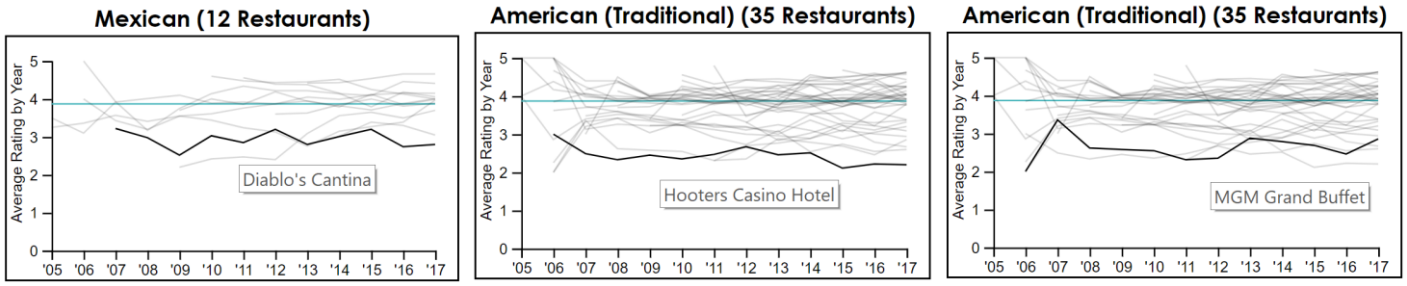
GitHub Link: https://github.com/minahkeem/info-vis-final

Challenges and changes

The implementation is very similar to the initial sketch. They both show data faceted by restaurant categories, and each path representing the restaurant can be highlighted by hovering the mouse over it. Basically, there were no design changes since the initial sketch because I deemed the visualization to be a good enough answer to all four questions.

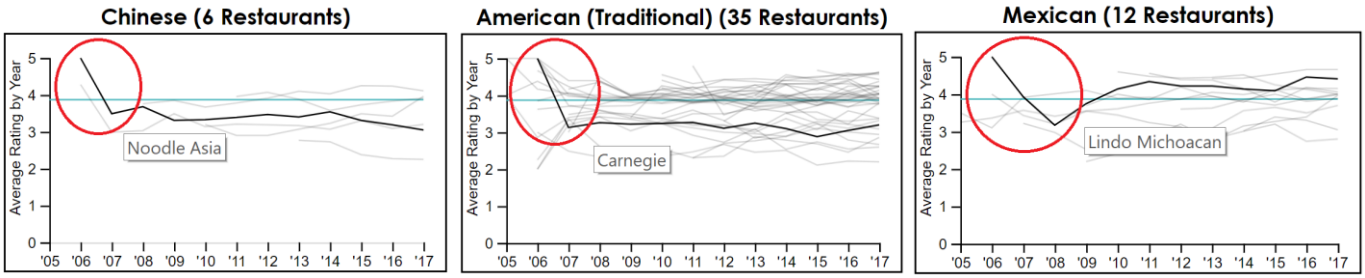
One big challenge I faced was transforming the data given in the JSON file to something more usable in my design. Instead of having quarterly data with different dates of evaluation for each restaurant (inconsistent scale on chart), I grouped average ratings into years ranging from 2005 to 2017. This was challenging because I had to take a weighted average of ratings using the number of people who gave the ratings. Another challenging part of this was that I had to change around the attributes (each year became an attribute) and had to give up some of the information for the visualization to work (number of participants).

Data Analysis Question 1: “Are there restaurants that have consistently negative reviews?”



The three restaurants highlighted above--Diablo’s Cantina, Hooters Casino Hotel and MGM Grand Buffet--had consistently negative reviews from when they were first reviewed to 2017. A viewer can determine this information by searching for lines that are furthest down from the average rating and do not fluctuate a lot.

Data Analysis Question 2: “Are there restaurants for which in some time periods their rating drops considerably?”



The three restaurants highlighted above--Noodle Asia, Carnegie and Lindo Michoacan--had their average rating drop considerably within specific time periods. A viewer can determine this information by searching for lines that have portions with steep, negative slopes.