Group 7

Goal

We like barbecue restaurants, so we want to see what barbecue restaurant owners can do to improve their business based on their yelp reviews.

1. Type of barbeque? American/Mexican/Korean
2. Ambiance
3. Location and hours
4. Price
5. Parking
6. Outdoor or not

Data Cleaning

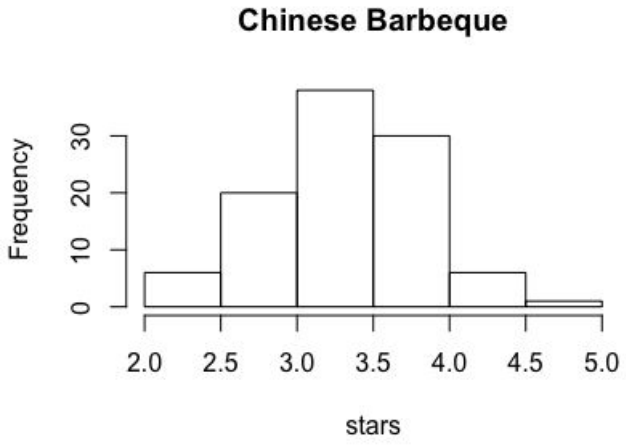
Original Data: n = 8.62 million reviews, m = 16 thousand businesses

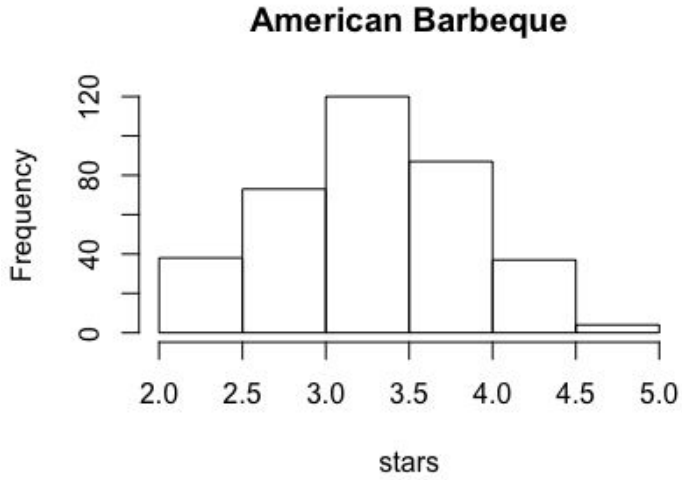
Goal: Explore business that serve Barbeque on Yelp and gather insights about the barbeque through yelp reviews

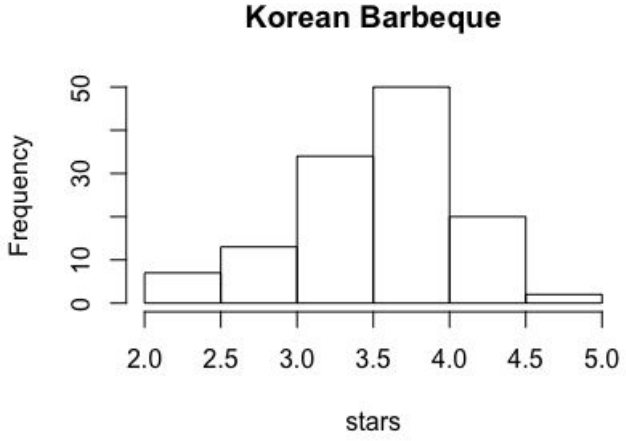
We achieve this goal by

Filter business and associated reviews with keywords “barbeque”

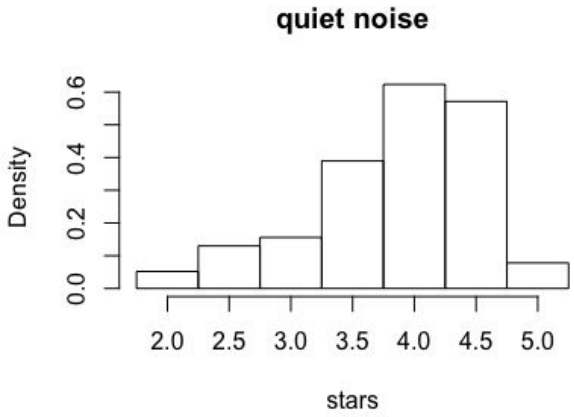
n= 247,896 reviews from m = 1483 businesses

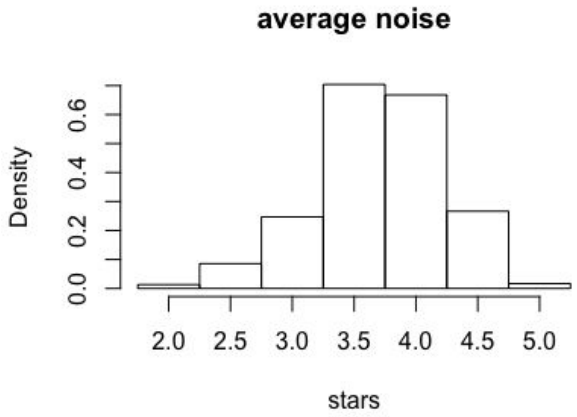


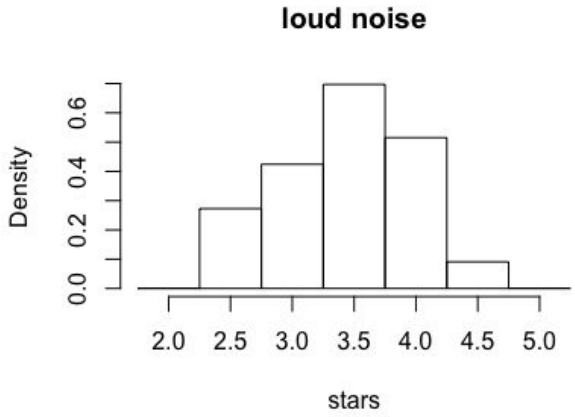




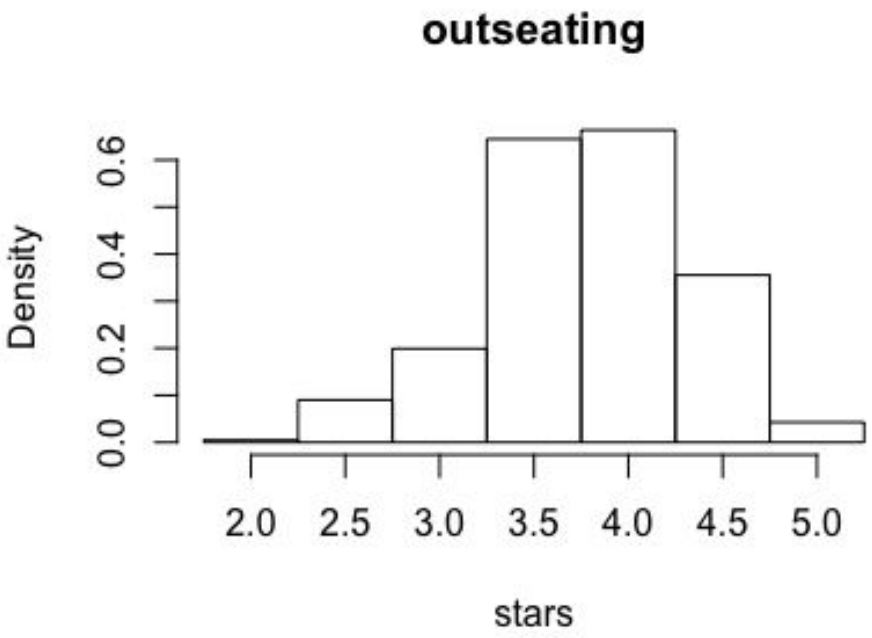
The anova test have a p-value of 1.24×10^{-7}. This means category plays an important role in barbeque restaurants' rating.

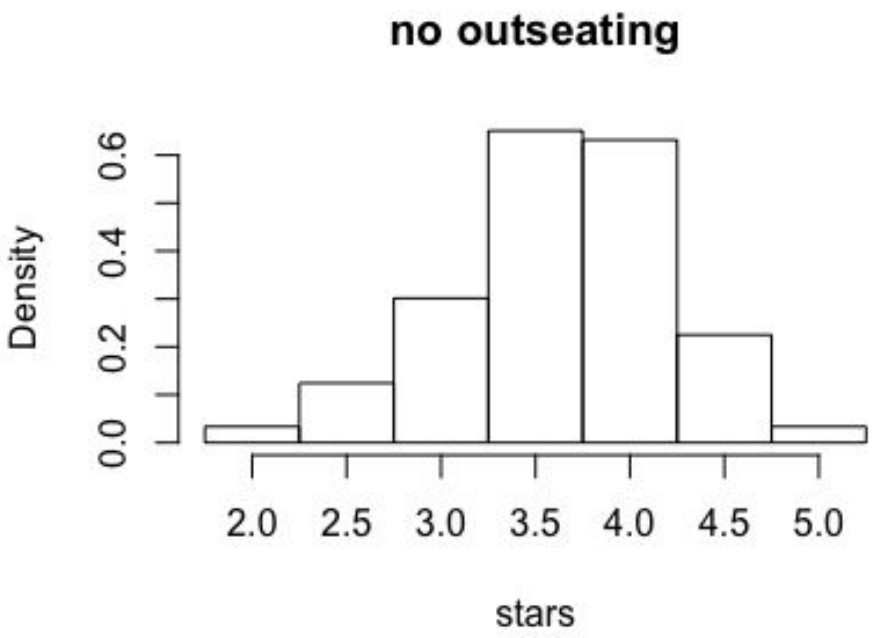




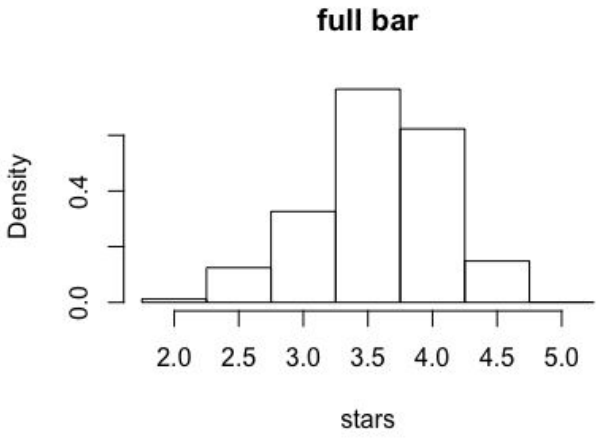


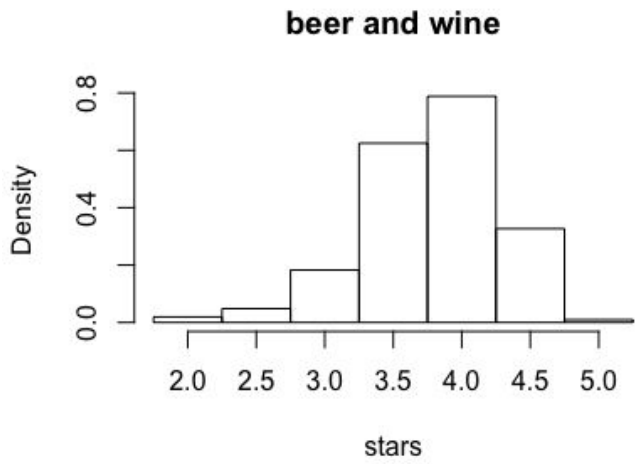
The anova test have a p-value of 4.89×10^{-5}. This means noise level also plays an important role in barbeque restaurants' rating.

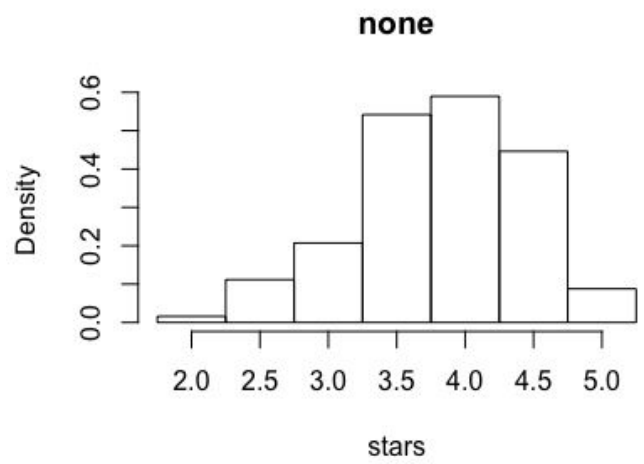




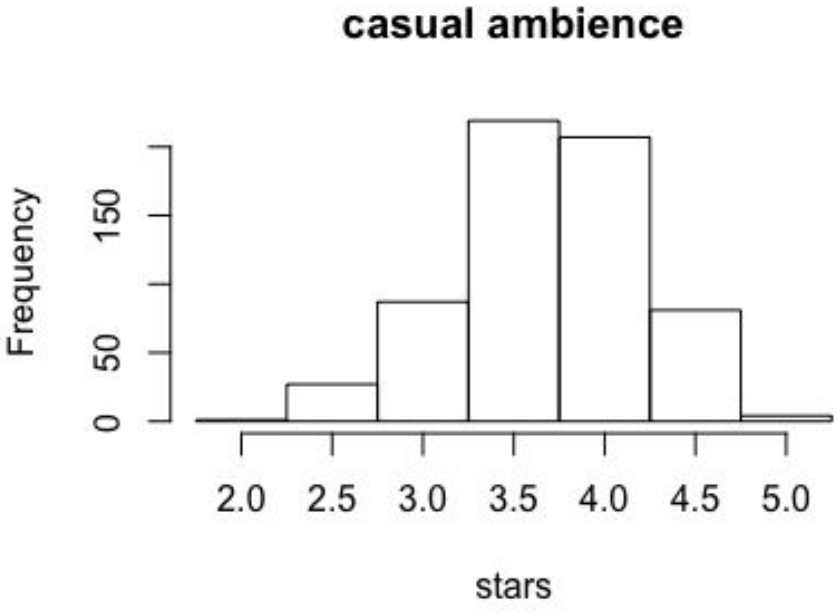
The t-test have a p-value of 2.766×10^{-4}. Difference in mean is 0.14.

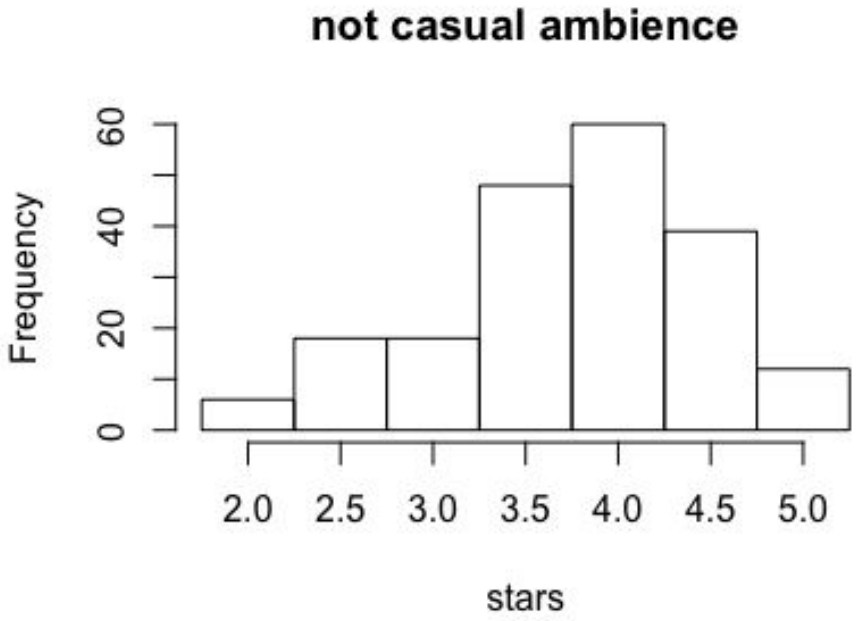






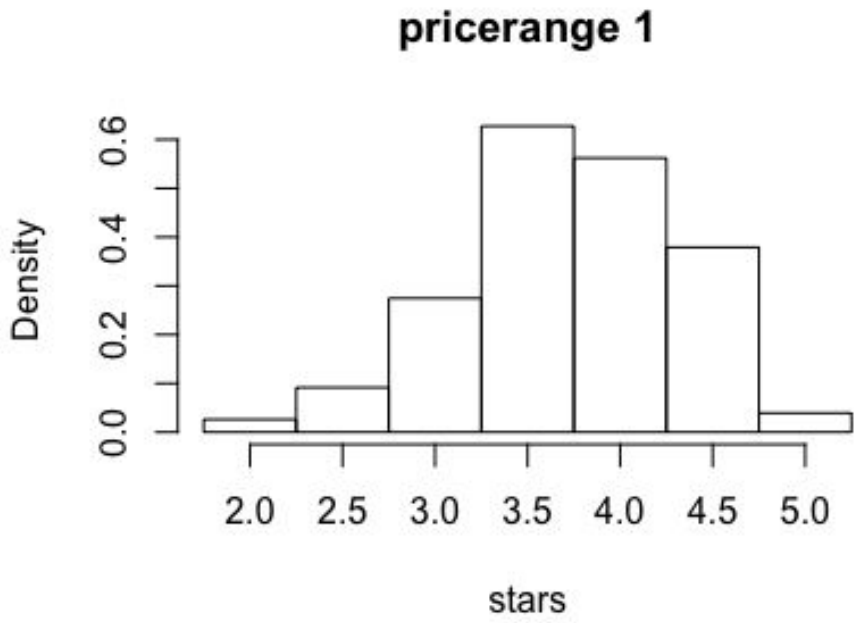
The t-test have a p-value of 4.69×10^{-7}. This means alcohol plays an important role in barbeque restaurants' rating.

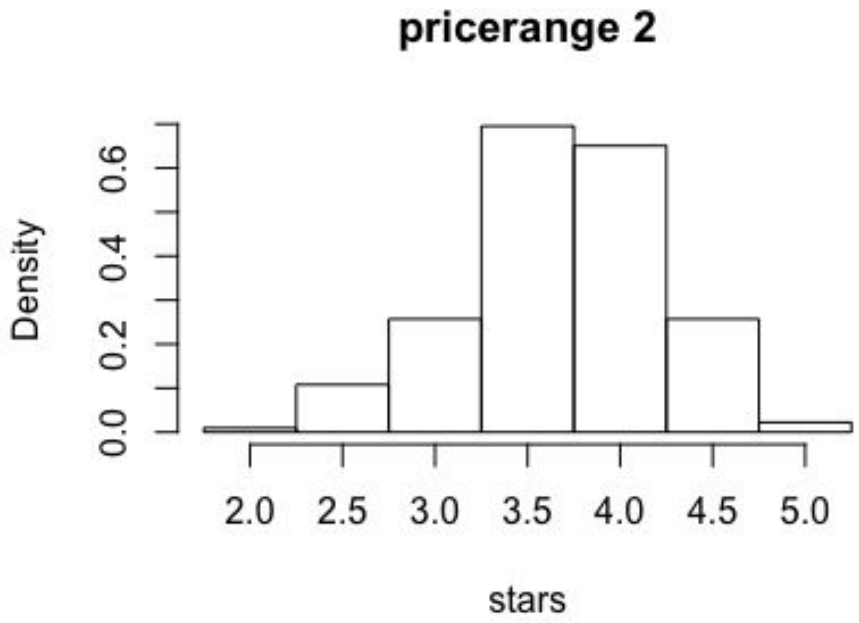




T test has a p-value of 0.24.

T-test has a p-value of 0.35





T-test has a p-value of 0.39.

Further steps

1. Further analysis of factors(such as “noise”, “outdoor”) by using review dataset
2. Use review to do sentiment analysis
3. Analysis top 10 barbeque businesses with most five star reviews, and analysis each of them