



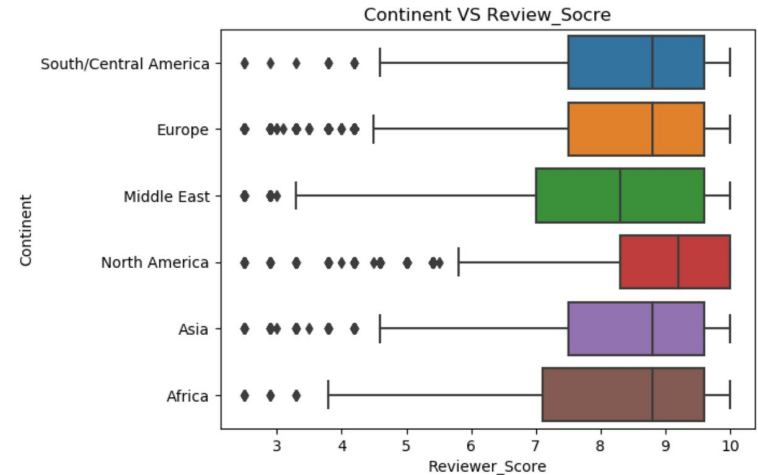
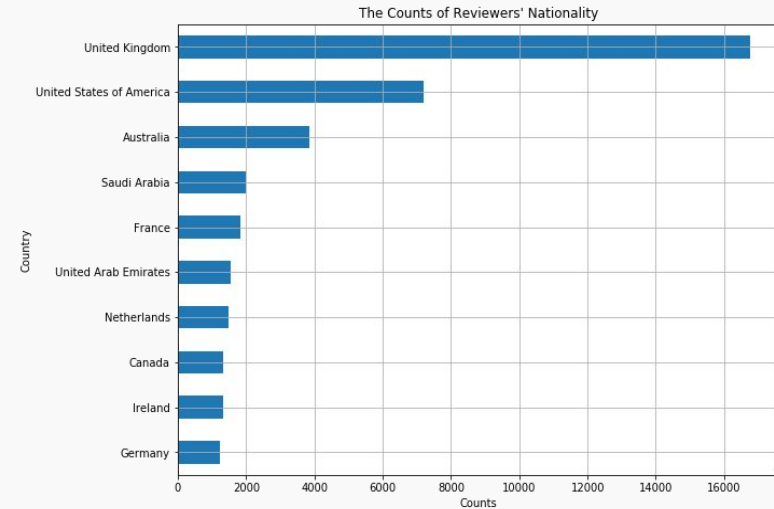
# **Stats 131 Final Project**

## **Hotels in Paris**

**Zeyuan Chen  
Jaehyeong Lee  
Arvin Monajemi  
Avash Monajemi**

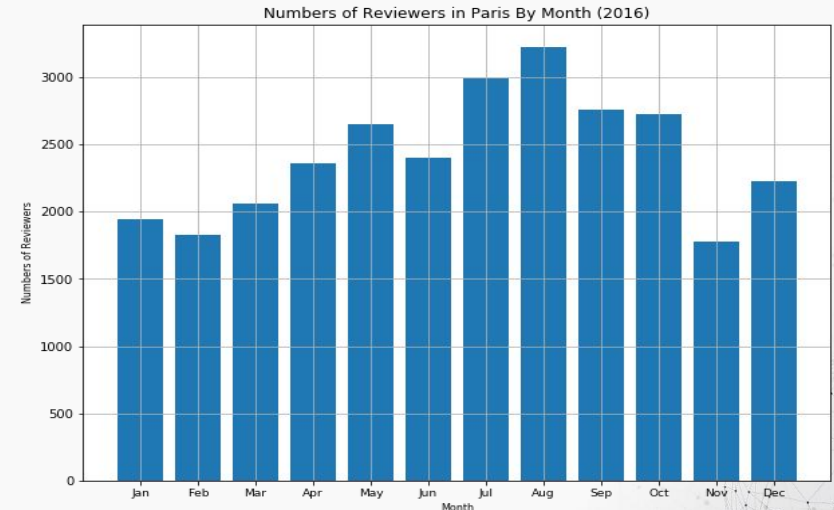
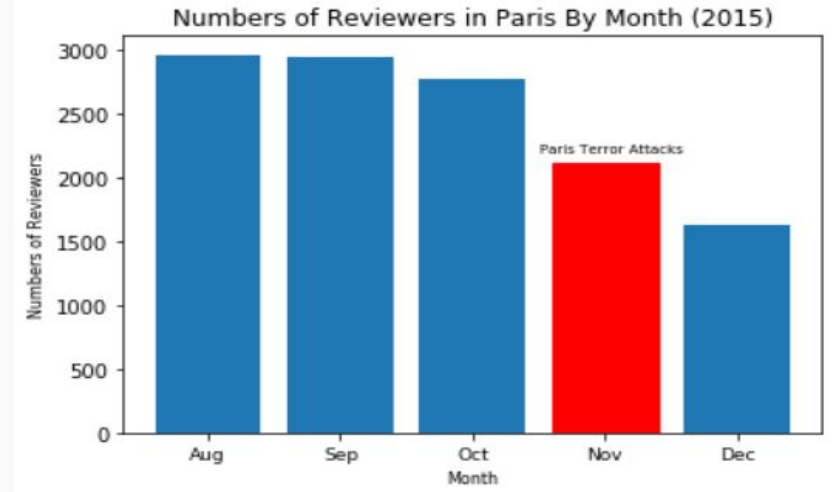
# Exploratory Analysis of the Data

- We notice that most of the top travelers to France are from wealthy western countries. Western countries tend to have more of an interest in other western countries.
- In addition, we see that Saudi Arabia and UAE also travel to France very often. There is a large Arab population residing in France, especially in Paris where we have subsetting our data to.



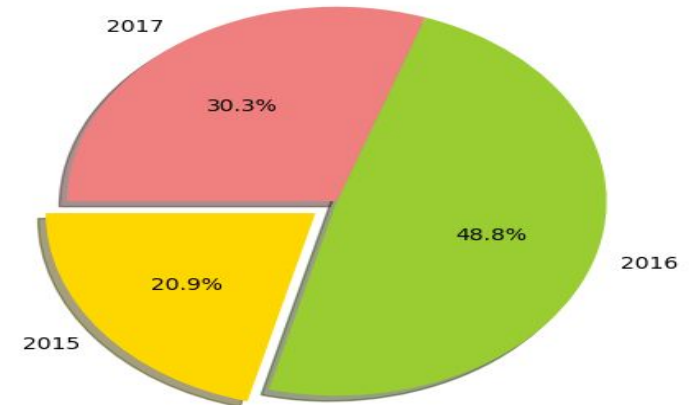
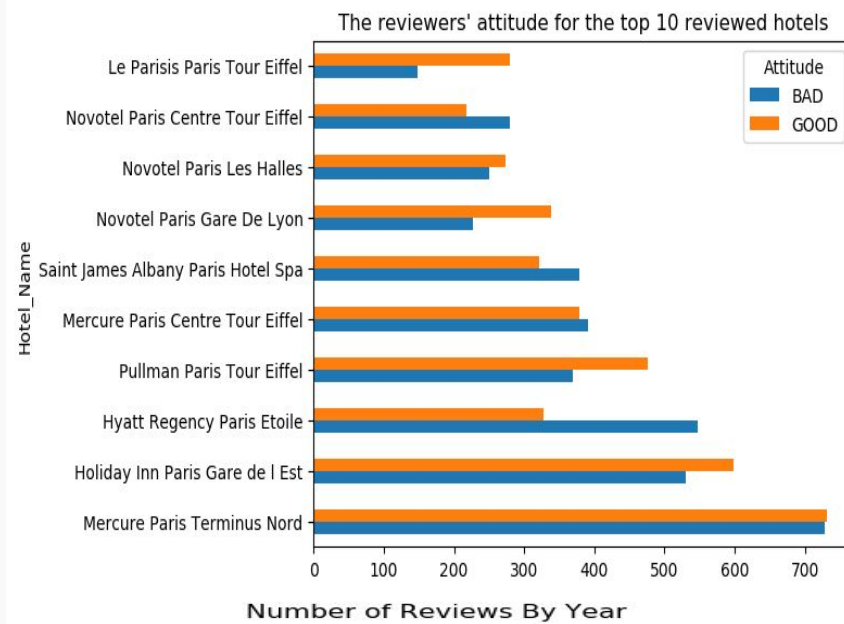
## Exploratory Analysis of the Data

- After a series of terrorism that occurred on November 2015 there was significant decrease in number of reviewers in Paris.
- However as months pass by, we see that number of reviewers gradually climbed back to normal



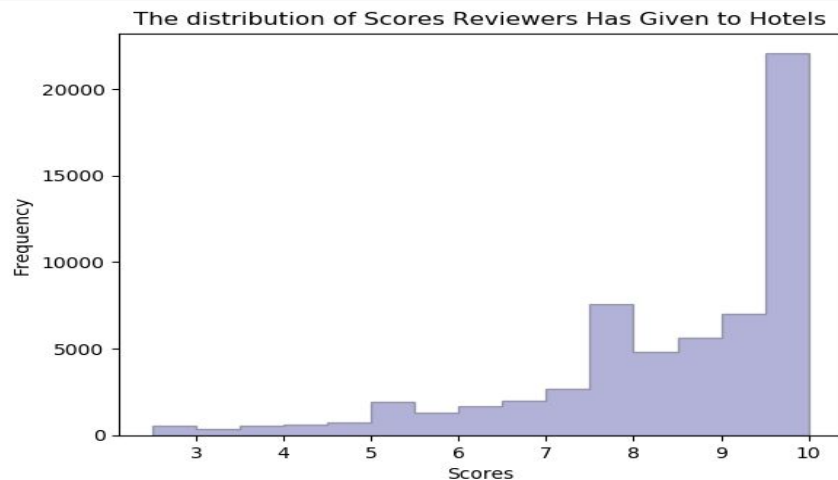
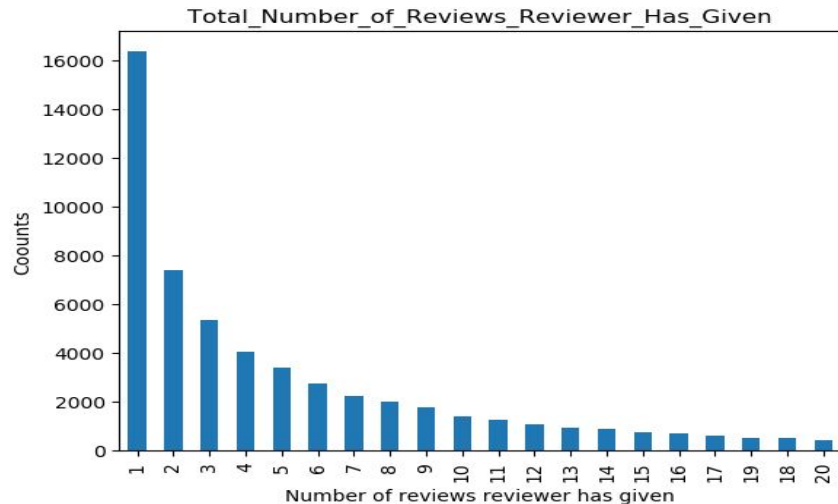
# Exploratory Analysis of the Data

- We see that the ratio between 'BAD' and 'GOOD' for attitude differs by quite a bit as we look at each hotel in the side-by-side barchart on the lower right-hand side.
- Le Parisis Tour Eiffel has more 'GOOD' than 'BAD' whereas Hyatt Regency Paris Etole has more 'BAD' than 'GOOD'.



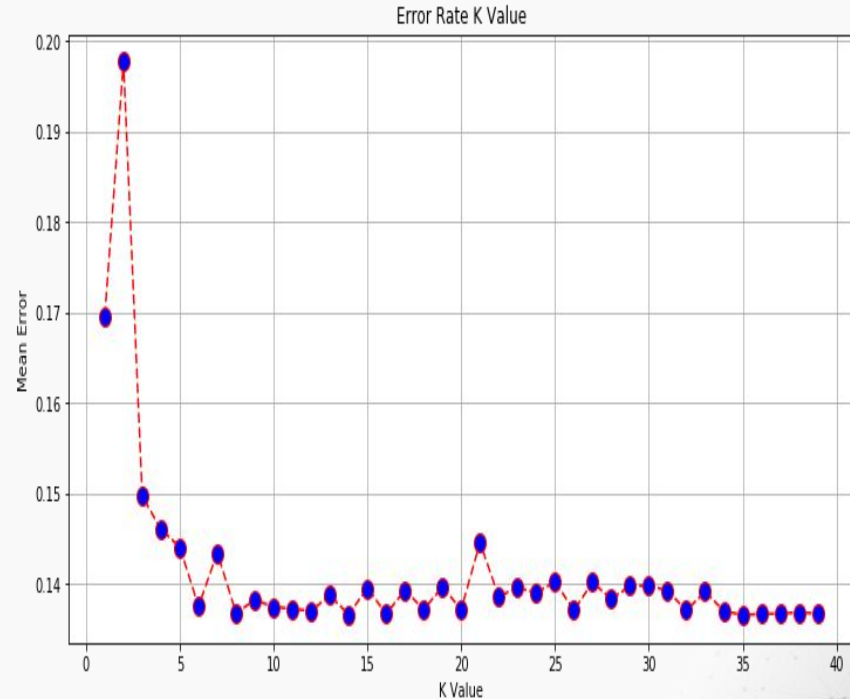
## Exploratory Analysis of the Data

- Most of reviewers are not active users and fairly new to Booking.com.
- Majority of users have given very high to perfect score for hotel ratings; There is a small peak at score rating of 7.8



# Data Modeling

- Decision Tree created from Solo, Continent, Season, and Month yielded the correct label for Reason with the total average accuracy of 0.86.
- KNN classification model inferior to Decision Trees
- One-Way-Anova model indicated significance differences in reviewer score means between the continent origin of reviewer.





**THANKS!!**