**Final Project Notes**

Checklist to do

Transform/Clean

Add table for Average Rates Monthly

Add table for Average Rates Day of Week

Add column for neighborhoods table.

Clean bathroom text to int

Model

* Random Forest
* KNN
* FB Prophet

Web App – Tableau Public Outline

1. Overview of NYC Airbnb (provide filters for borough)

* Density Map
* Cards
  + Total # Reviews
  + Total # of Superhosts
  + Average Review Score
  + Total # of Neighbourhoods in Data
  + Total # of Listings
  + Average Rates (per night)
* Rates
  + Yearly
  + Monthly
  + Day of Week
* Room Type (Tree Map)
* Top 10 Most Reviews
* Top 10 Review Scores
* Top 5 Superhosts

1. Models Analysis
   1. Random Forest
      * Correlation of Features
      * Features Importance (Pie or Bubble)
      * Accuracy Results
   2. KNN
      * # of Listings per Neighbourhood
      * Prices in that neighbourhood
      * Accuracy Results
   3. FB Prophet
      * Previous Price Trends
      * Current Price Trends

Database Changes

* Added tables for monthly and day of week rates to get a better overview of how to price Airbnb listings (used calendar CSV)

Clean/Transform 🡪 Models

* Delete columns irrelevant to model testing
* Fill in n/a with avg results for columns with blanks to prevent skewed data
* Changed all text to categorical
* Took out a few rows w/o superhost value

Difficulties/Challenges

* Connection limitations with ElephantSQL 🡪 tableau connection slows down
* Storage size limits 🡪 go through process of transforming data with groupby
* Hypertuning 🡪 couldn’t get it to work at first

Next Steps

* Move to AWS for ETL
* Explore other models
* Compare prices to other cities