Team High Flyers

Project 3 – NYC Apartment Rent Prediction & Analysis

**Team Members:**

* Russell McGrath
* Alexandra Zelcer
* Tony Joy
* Sumita Trivedi
* Sharmila Sainani

**Project Description:**

Creation of a web-based tool that allows users to enter NYC apartment feature requirements and have the application return the predicted monthly rent of an apartment with those features using ML learning models.

Additionally, the website will provide insights and analysis into NYC rent trends.

**Goal End State:**

* Web app which:
  + User will be able to select multiple features to analyze and enter values to predict.
    - Website will provide a default feature set and be run with a pre-created prediction model. (MVP)
    - User can select other feature combinations and the app will create and run ML models on the fly (Nice to have)
    - To create/run on-demand models, data will be stored in a DB (PostgreSQL)(Nice to Have)
  + Visualizations and analysis of rent prices (MVP)
    - To be created in Tableau
    - Added to website using HTML Tableau plugin

**Datasource**: StreetEasy Dataset from Kaggle.com: <https://www.kaggle.com/zohaib30/streeteasy-dataset>

**Tools to be used**:

* Pandas
* Matplotlib
* Scikit-learn
* HTML/CSS
* Bootstrap
* Flask
* PostgreSQL
* Tableau
* Tableau HTML Plugin
* Heroku (or AWS)
* Github
* Trello

**High Level Division of Work**:

* Database Creation – Sharmila, Tony, Sumita
* Web Design – Alex
* Visualizations – Sharmila, Alex
* Tableau/HTML Integration – Sharmila, Alex
* App Server – Russ, Sumita
* ML Modeling – Russ, Sumita
* App Deployment – Russ, Sharmila
* Presentation – All

**Trello Board WIP**:

