**SCM 516 Project Proposal**

**Noah Cornelius, Hui Li, Pranjal Maheshwary, Jing Zhou**

1.) Do different attributes of an Airbnb affect the price of its rental? We want to know what attributes of an Airbnb are significant in impacting the price of the rental. In addition, we’d like to understand how each significant attribute impacts the price too.

2.) We’d like to have data on a variety of variables that we believe are going to make a difference on our price. We’d like to see the following:

* Specific location
* Type of rental
* Availability
* MInimum nights per rental
* Reviews

3.) We intend to use previously collected public data gathered by Kaggle from 2019 and specifically in New York City. We plan on using pre-processing procedures to ensure the quality of data ourselves.

4.) We are going to be cautious of missing data and data entry errors. Granted we have enough data points we will probably just remove these errors. Also, we will be weary of the possibility that some of our categorical variables may include a large amount of levels. In this case we may make such variables less granular.

5.) We plan on using StatTools to run a regression analysis. From there we’ll be able to interpret hypothesis tests as to whether our analysis and individual variables are significant. We hope to be able to build a confidence interval that explains the relationship that our independent variables have on our dependent variable. After doing all such procedures we hope to understand the relationship that specific Airbnb attributes have on the price of its rental.