Predicting and Analyzing NYC Taxi Dataset

Github Link :

https://github.com/LatifaAlnaim1996/FinalProject/blob/main/Code.ipynb

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NYC Daily Trips: Taxi, Uber, and Lyft
Based on TLC summary data
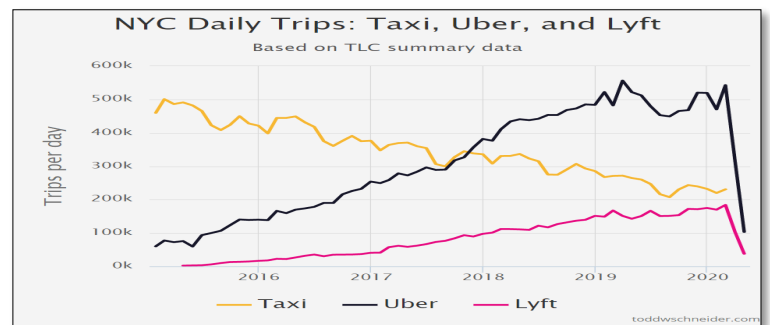
Summary:

It is very important to make future analyzes and projections for any organization or institution, especially with competitors in the arena (like Uber), to continuously increase its success and know its strengths and weaknesses. In my project, I found that these NYC Taxi dataset will be of great use to me in my logical and predictive analytical studies. And because the NYC Taxi is well known and very important everywhere, especially in the New York area, which is a tourist state, the use of taxis by users is very large. In this project, I faced many challenges in choosing the appropriate modeling for it due to the existence of interconnected relationships between the attributes. I learned that each data has its own method of analysis and logical prediction, depending on the type of data used. In this project, inspiring ideas will be presented that will significantly develop the NYC Taxi and increase the number of its users.

Data Process :
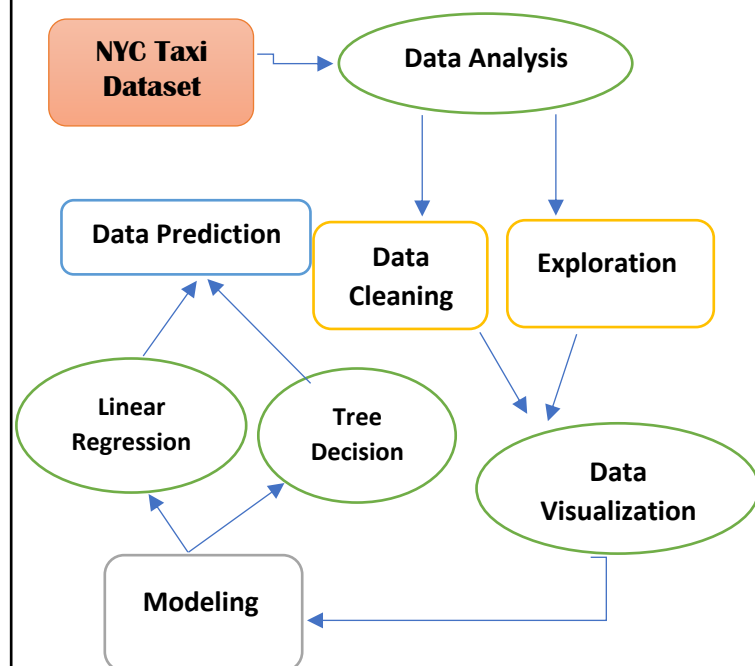
Models and Result :

- The models used are :
    1. Linear Regression.
    2. Tree Decision.
- To evaluate my model results I used Bar chart to see the prediction results on both models (Linear Regression, Tree Decision).
- I concluded that with the presence of competitors for NYC taxi, the results of expectations show us that users of the taxi are in decline, and therefore the company must develop a plan to develop its services for users by putting packages and exclusive offers for users , to increase the desire and prefer NYC taxi over other companies.

As we see in the left chart the passenger count in NYC taxi , They include from 1 to 5 passengers in the trip. And as we see the one passenger has the higher chance to be in a trip. It is better to make promotional offers and special packages for passengers of more than 3, to motivate customers to use the NYC taxi.