Mylah K. Gainey

Executive Summary

After recently experiencing a jarring car accident, I was placed in a position of finding a new automobile that is affordable, safe, and has unique features. I pulled Town of Cary, NC Crash data from data.world and 2019 Car Price data from Kaggle. I pose the following questions: Which automobiles have the best value based on prices and features? Are Cars or SUVs more prone to car accidents? The final capstone will contain a variety of charts, maps, and graphs to analyze automobiles based on their prices and features. The analysis will be presented via a Tableau story. I foresee challenges with merging the datasets, ensuring the headings of columns align, and finding similarities to link the data being analyzed.

Motivation

In July of 2022, I was in a head-on auto collision. My vehicle was wrecked and I was hunting for a new car. I was very concerned about the next vehicle I would purchase, as though I had no clue what type I should get. This motivated me to look for data that could show different automobile comparisons. I have developed a strong interest in automobile safety and need to identify the best cars for me.

Data Question

Which automobiles have the best value based on prices and features?

Are Cars or SUVs more prone to car accidents?

Minimum Viable Product (MVP)

The final capstone will contain a variety of charts, maps, and graphs to analyze automobiles based on their prices and features. The analysis will be presented via a Tableau story. The intended audience for this presentation includes but is not limited to individuals searching for a new automobile, automobile competitors, car safety advocates/liaisons, and government officials that could potentially improve legislation around the topic. Identify the best car for me to purchase in the near future.

Schedule (through <08/19/2022>)

1. Get the Data (08/09/22)
2. Clean & Explore the Data (08/10/22)
3. Create a Presentation of your Analysis (08/11/22)
    - Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI
4. Internal demos (08/12/22)
5. Demo Day!! (08/19/22)

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Data Sources

Data.world (Town of Cary, NC)

https://data.world/townofcary/cpd-crash-incidents

https://data.townofcary.org/pages/homepage/

Kaggle

https://www.kaggle.com/datasets/hellbuoy/car-price-prediction

https://www.kaggle.com/datasets/prassanth/new-cars-price-2019

Known Issues and Challenges

- *Merging the datasets*
- *Ensuring the headings of columns align*
- *Finding similarities to link the data being analyzed*
- *Transforming category column by adding to crash data and adding new column to categorize vehicle1 as car or suv*