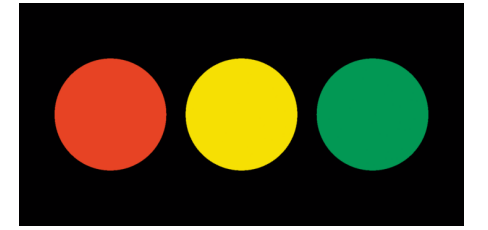


Case Study Problem Set 1

Group Five & Furious

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Bae Jongseong
Tan Ke Wei Nicholas

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Problem Statement



You've been hired by a startup that wishes to get into the used car market in Singapore.

As such, you were tasked to conduct some market research on competitors and come up with business insights.

Key Assumptions

- Sgcar mart represents the entire used car market
- All clients buy used car through online platforms
- Data collected are listings as of 3rd September 2022
- Listings without prices are removed from dataset

17,592 vehicles

Car Make / Model

Any Category

Advanced Search

Search

Make

Model

Price

Depreciation

Reg Date

Eng Cap

Mileage

Veh Type

Status

Search Selection

Any

Any

Any

Any

Any

Any

Any

Available



Mercedes-Benz C-Class C180 Avantgarde

\$72,800

\$21,640 /yr

27-Apr-2015

1,595 cc

-

Luxury

Available

1 owner, well maintained by owner. Trade in, in house and bank loan are available, feel free to contact our friendly sales consultant for more info and viewing.

Posted: 07-Sep-2022



| listing_name | price | depreciation | reg_date | eng_cap | mileage | veh_type | brand | model |
|----------------------------------|---------|--------------|------------|---------|----------|-----------|---------------|--------------------|
| Mercedes-Benz GLA-Class GLA200 | 50888.0 | 23370.0 | 2014-05-26 | 1595.0 | 123122.0 | SUV | Mercedes-Benz | GLA-Class GLA200 |
| Mercedes-Benz A-Class A180 Style | 71800.0 | 17720.0 | 2016-03-07 | 1595.0 | 55000.0 | Hatchback | Mercedes-Benz | A-Class A180 Style |
| Mazda 3 HB 1.5A Deluxe | 84800.0 | 13510.0 | 2018-04-12 | 1496.0 | 44500.0 | Hatchback | Mazda | 3 HB 1.5A Deluxe |
| Honda Fit 1.3A GF | 72800.0 | 12120.0 | 2018-06-22 | 1317.0 | 49700.0 | Hatchback | Honda | Fit 1.3A GF |

Background Information



Market Overview & Size

Singapore Used Car market is in its growth phase, increasing at a **CAGR of -3.1%** (by value in SGD Billion) during **2015-2020**.

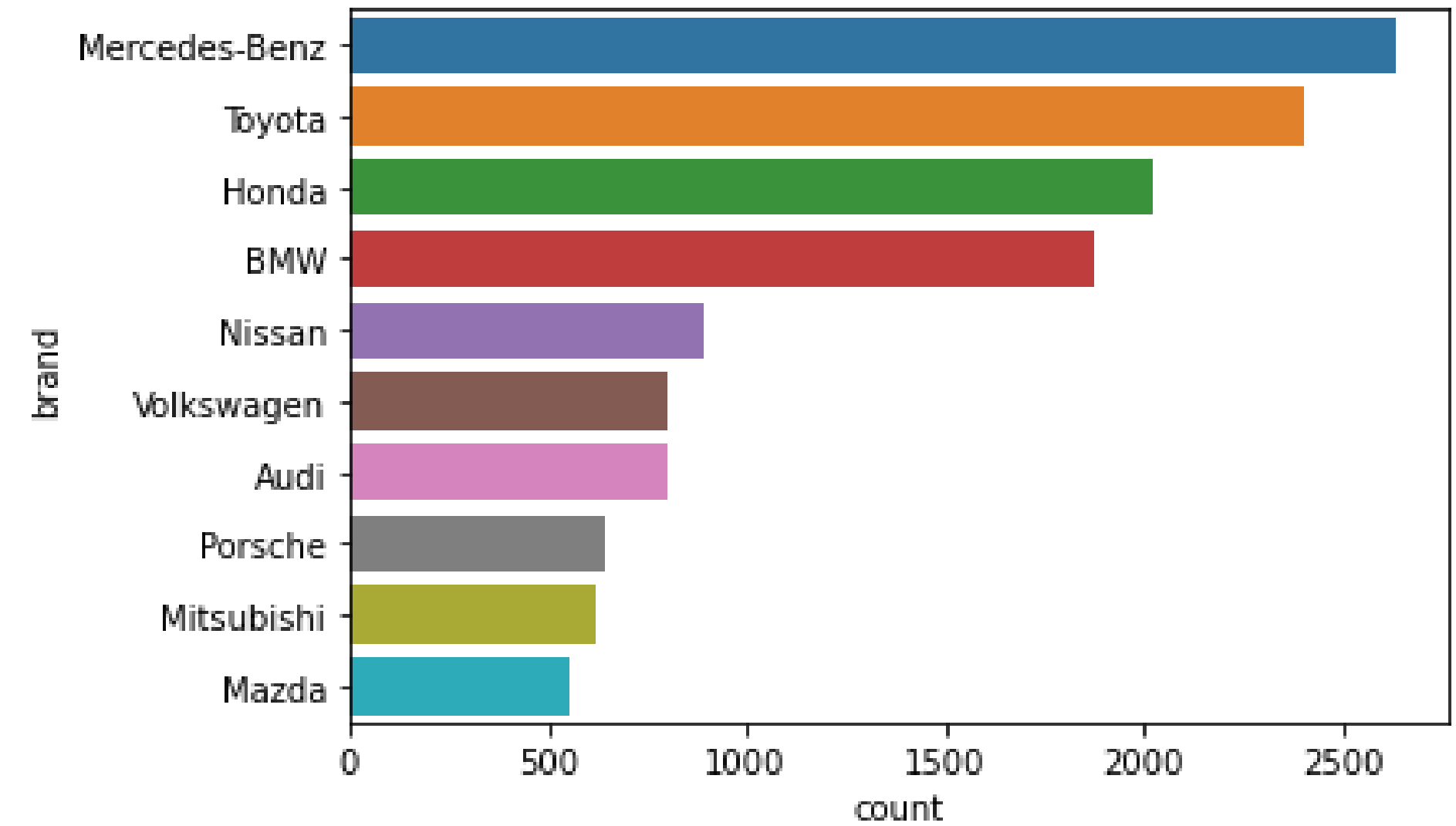
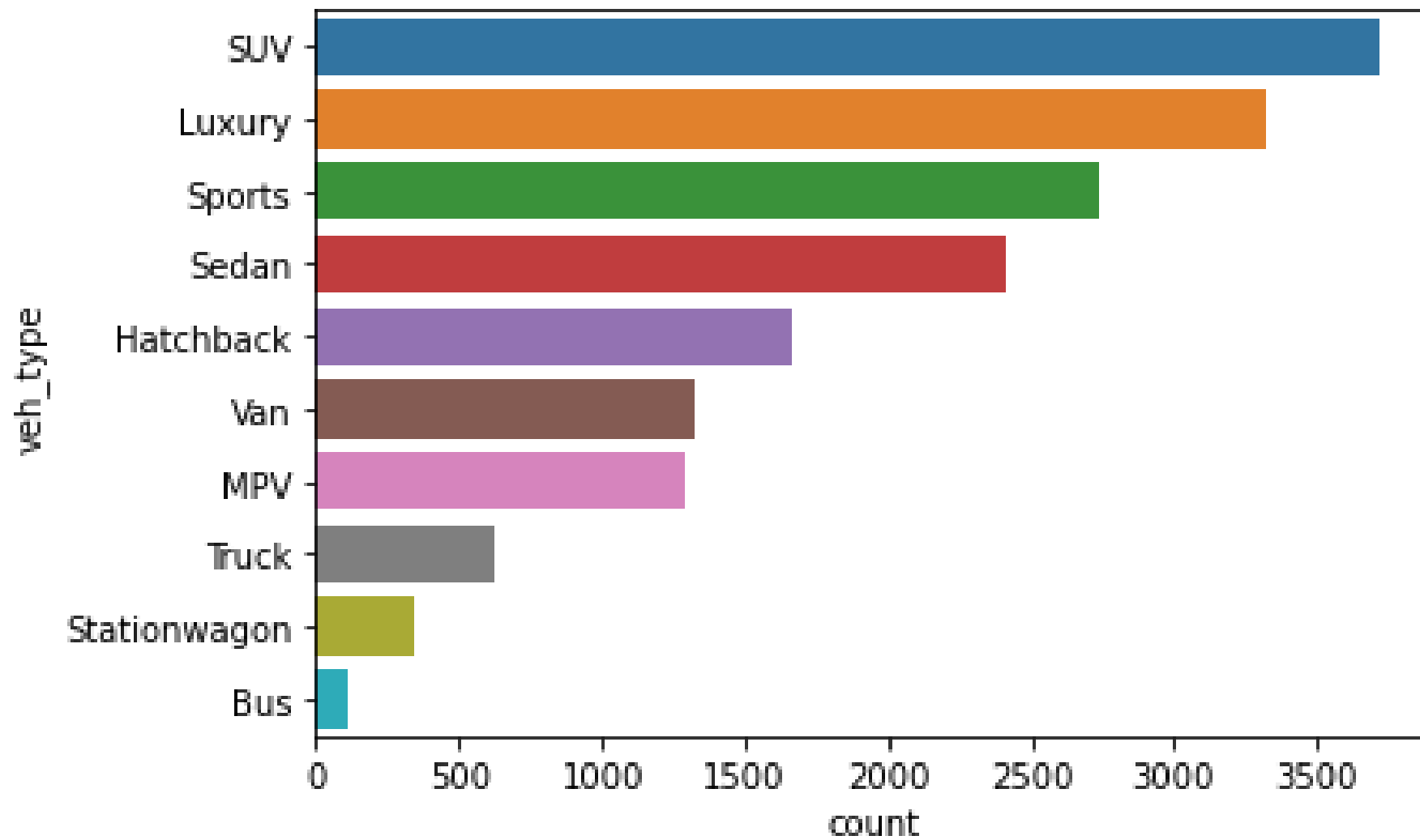
Market Drivers

- Demand of private cars
- Convenient financing
- Increased internet penetration
- Enhanced digitalization of the used cars space

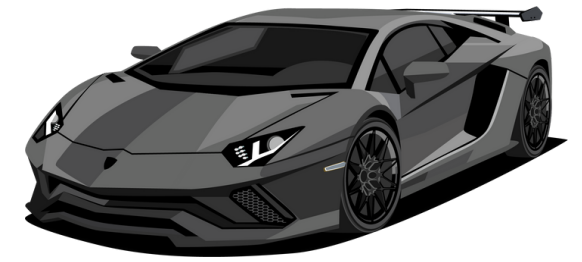
Market Future Outlook

The used car industry in Singapore is expected to demonstrate a decent growth in the future. It is expected to increase at a **five-year CAGR of 11.1%** (by value in SGD Billion) from 2020 to 2025E.

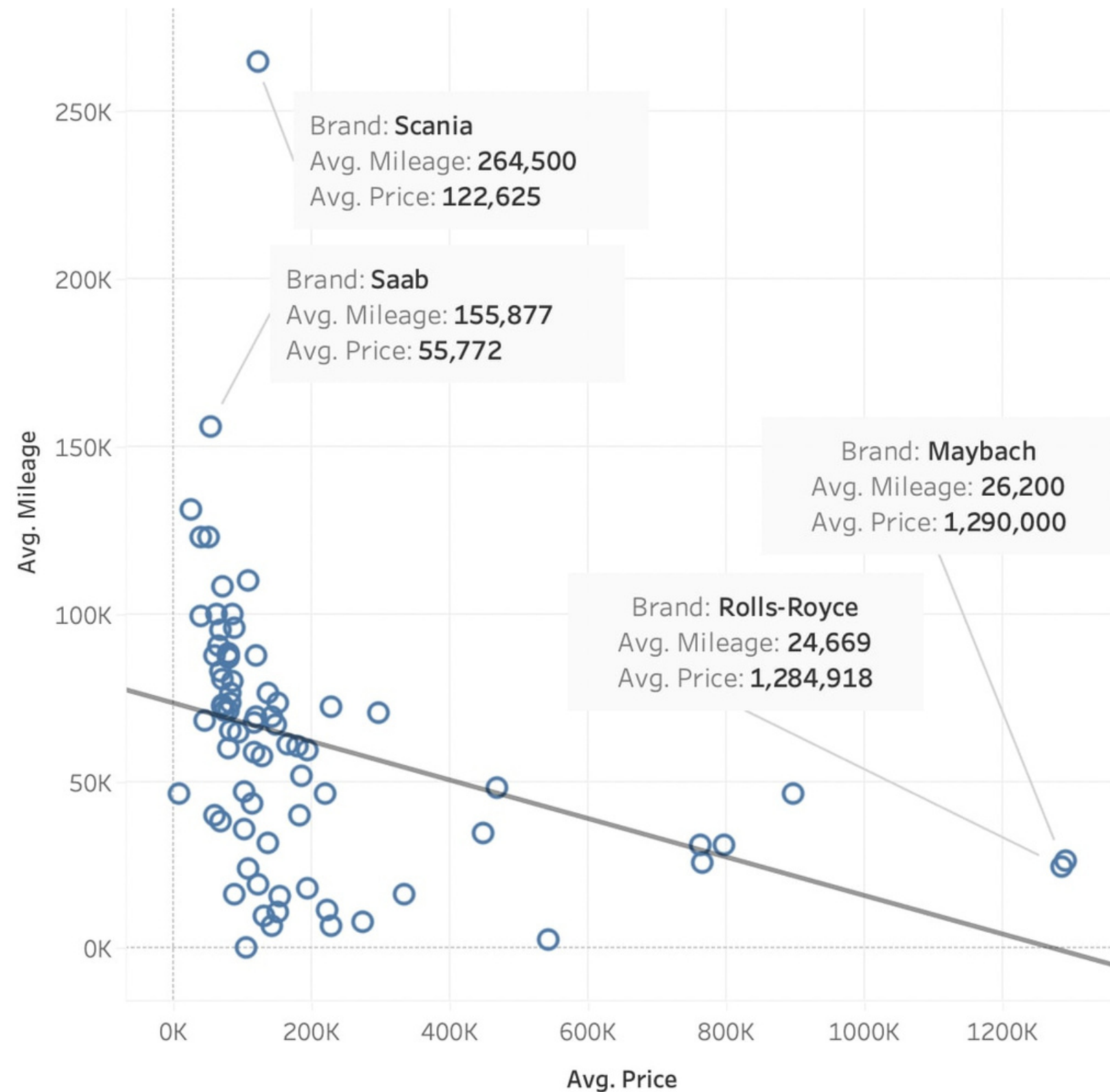
Key Insights - Popularity



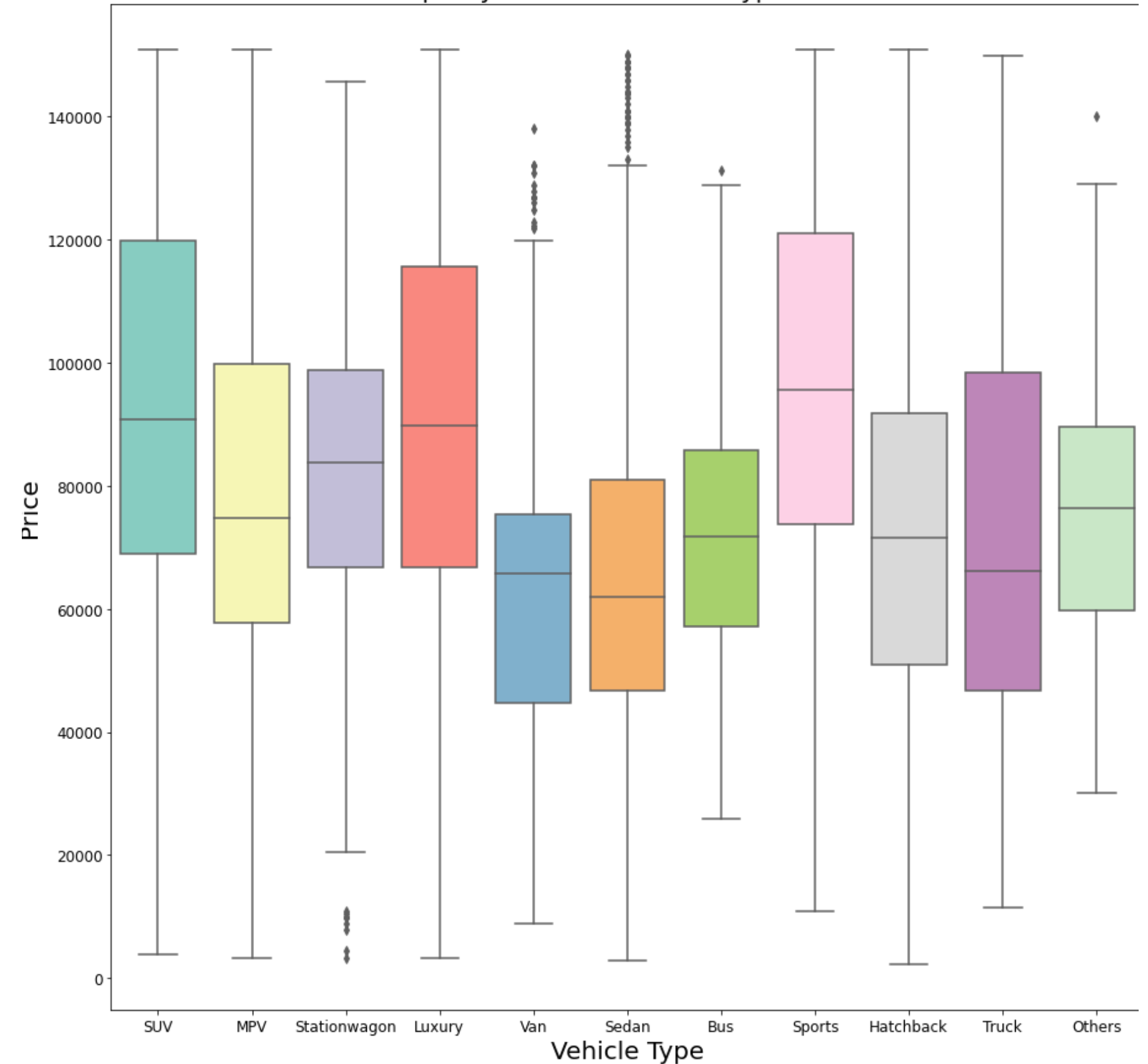
Key Insights - Price



Avg Price vs Avg Mileage Based on Brands



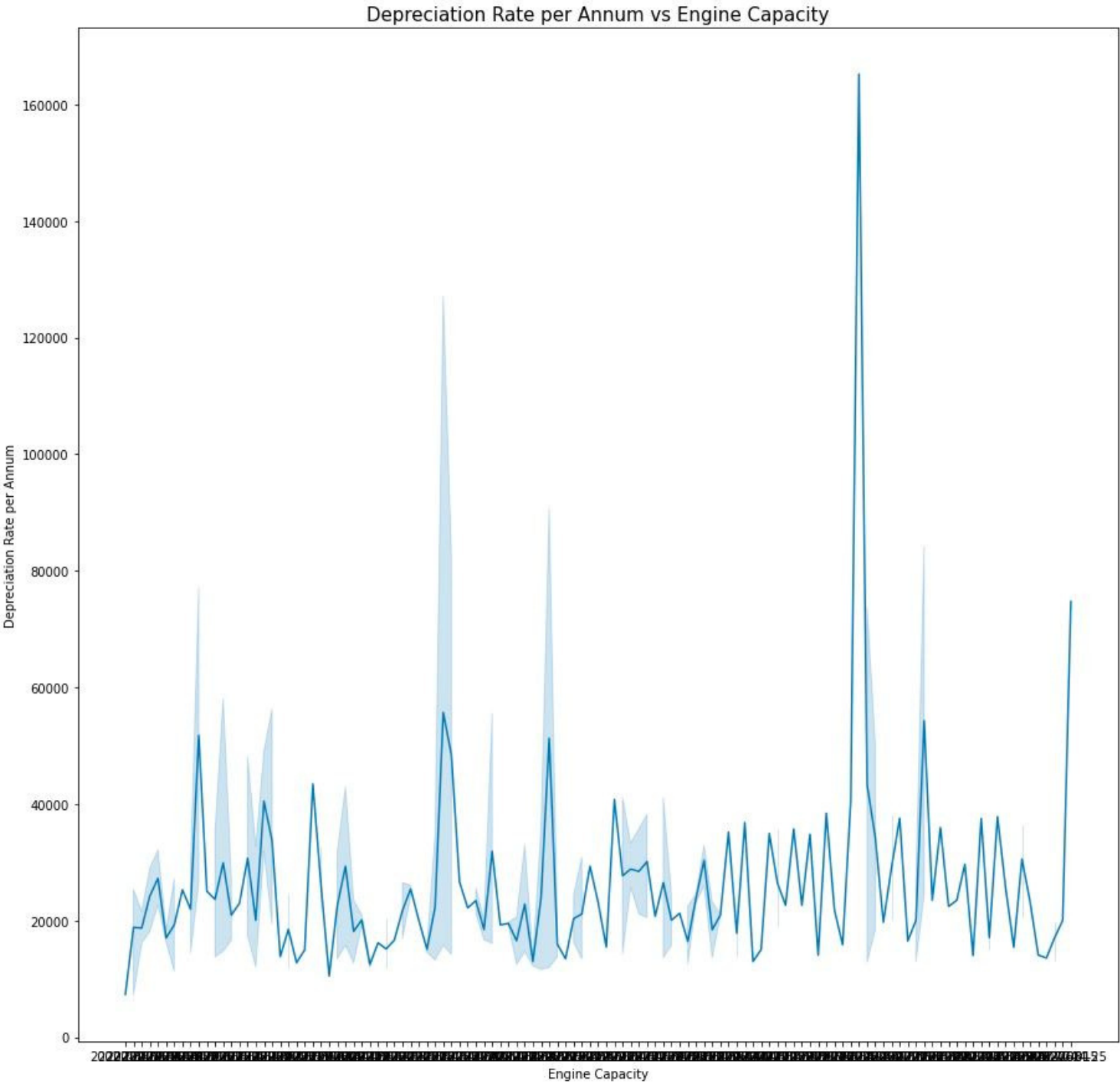
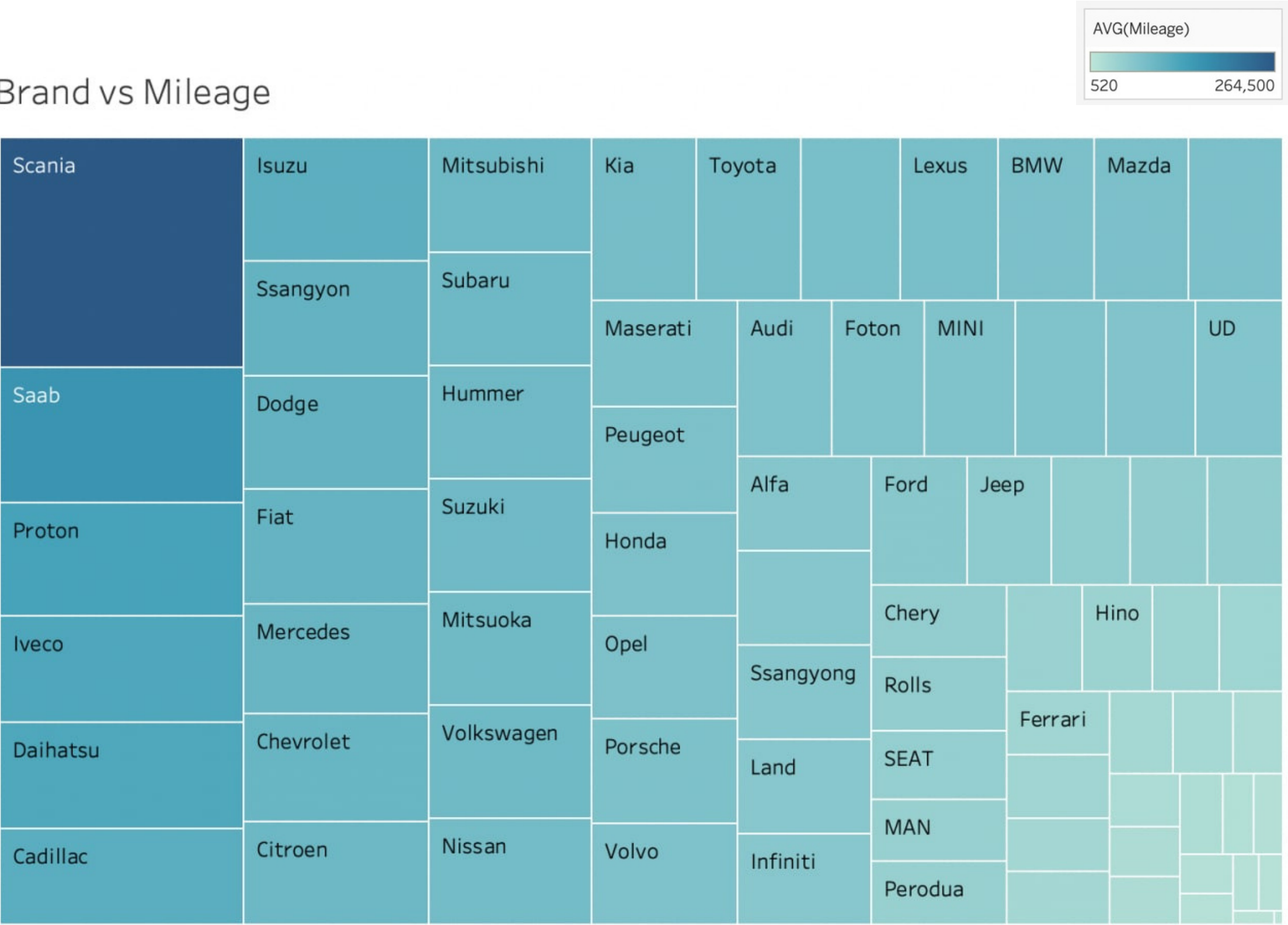
Price Disparity between different types of vehicles



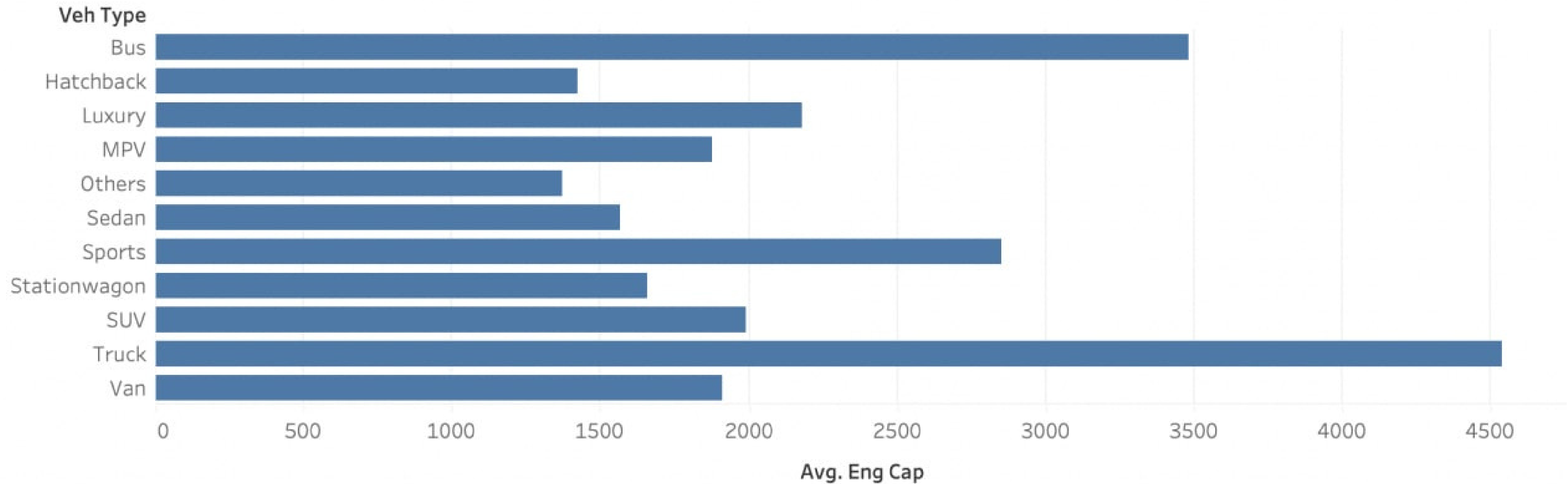
Key Insights - Specifications



Brand vs Mileage



Key Insights - Specifications



Limitations



- Uncertain demand due to macro-environment (etc. COVID-19)
- Listings have different number of COE years remaining which may be a large price factor

Conclusion



The recommendations we offer to our client after analyzing Singapore's used car market are:

1. The startup can consider offering the top 10 brands & vehicle types identified to cater to Singaporeans' preferences
2. The startup can market brands like Scania and Saab as "value for money" cars since price is significantly lower for a high mileage.
3. The demand for SUV, Luxury and Sports car is still high in the used car market, as shown in the high mean value for price. The sales team can target these types, while moving away from low priced types like Van and Sedan.
4. Engine capacity has little association with Depreciation rate, which shows that perhaps in the used car market, engine capacity does not play a big part in determining the value of the car. Engine capacity could be a secondary consideration for the sales team.



```
import NUS BACT
```

```
print("Thank you for your attention")
```

```
return Group 5
```