JUSTYNA JAKUBOWSKA

Used Cars Sales Analytics Report

2023

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01

Market Overview

There were over 300,000 cars sold last year.

Based on the collected data I built price prediction models and what cars characteristics influence the price. Every buyer, as you know it, has a type of car they are shopping for. A large family might buy a minivan, a contractor might go for a pickup, a student might go for a coup, while a dog owner might want to have a wagon. All these cars have different features that are attractive to a buyer. Hence I decided to divide the data into groups by type of the car:

- Sedan
- SUV
- Pickup
- Truck
- Coupe
- Hatchback
- Convertible
- Van
- Wagon
- Minivan
- Bus
- Offroad
- Antiques
- Convertible
- Van
- Wagon
- Minivan
- Bus
- Offroad
- Antiques

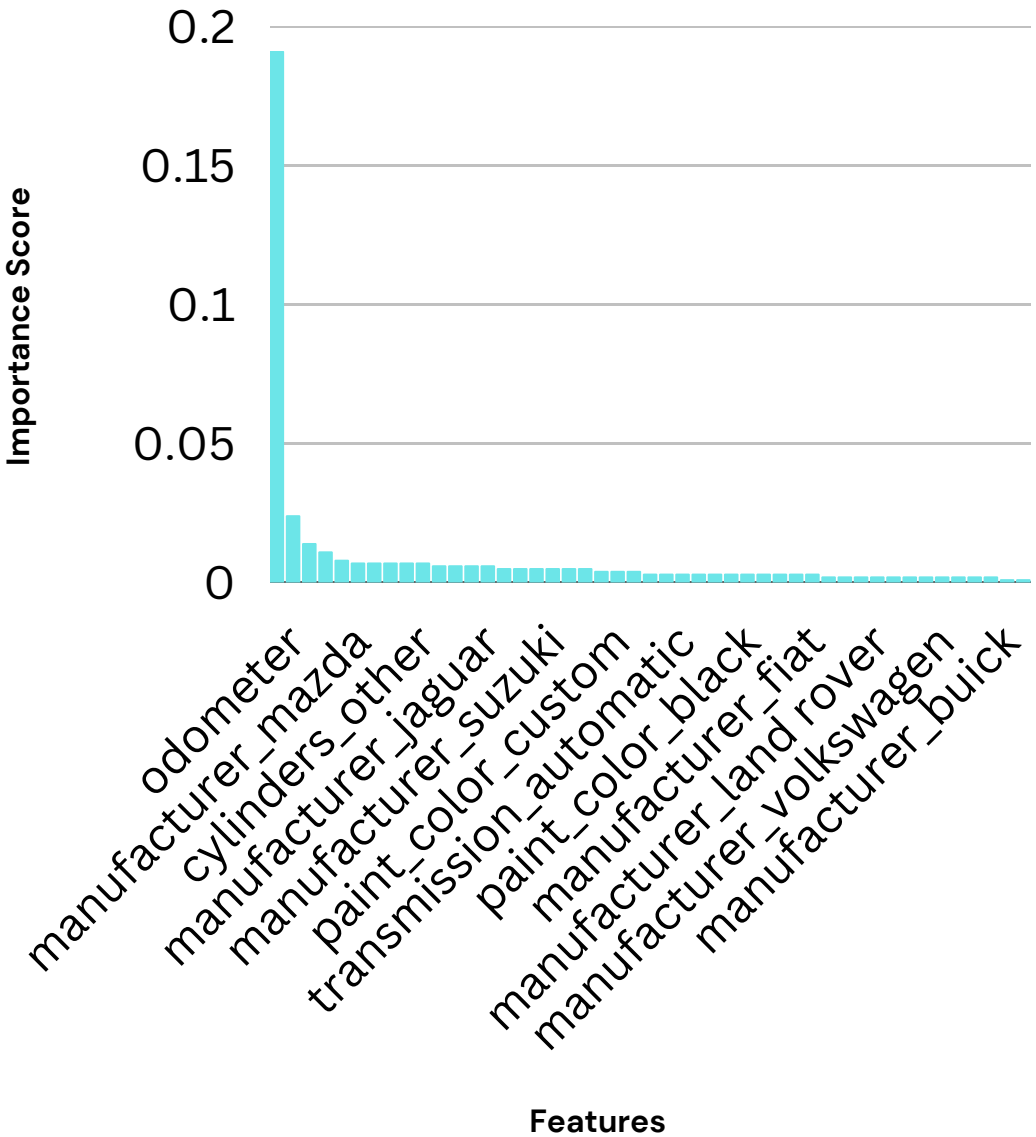
As you can see I also separated cars that are 25+ years old because they are considered antiques by definition and they have their own specific features.

You can find below the features that influence price of each car type and also the data on the last year sales.

02

Sedan

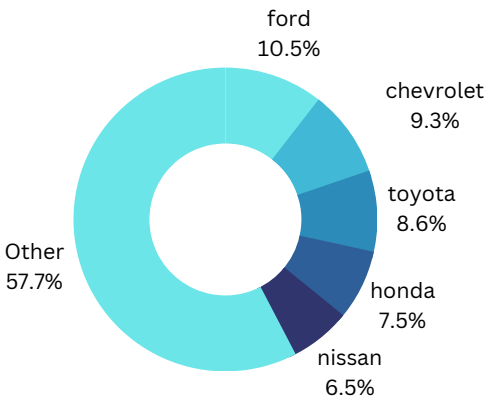
The price of the sedan is driven by features listed below on a chart. Most influential features are on the left.

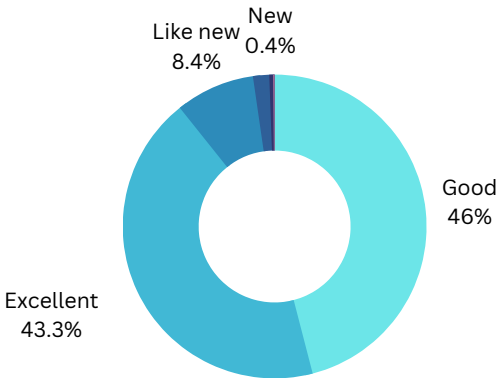


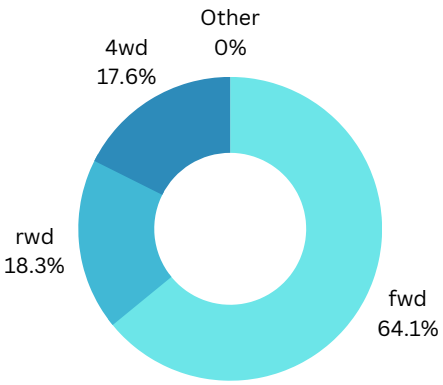
02

Sedan

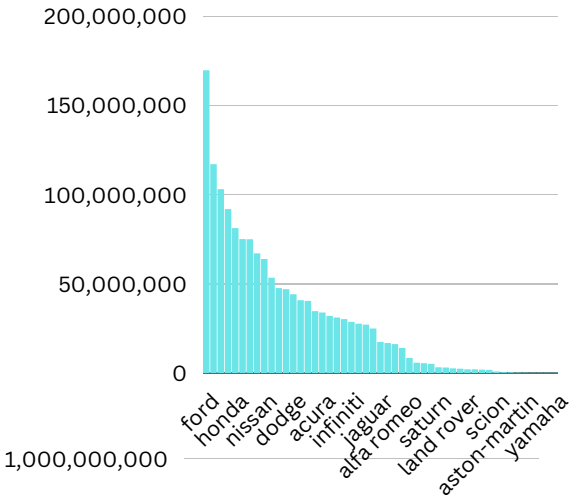
The previous year sales by total quantity.

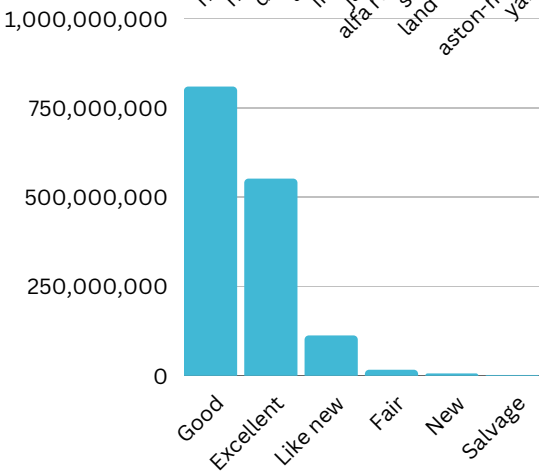


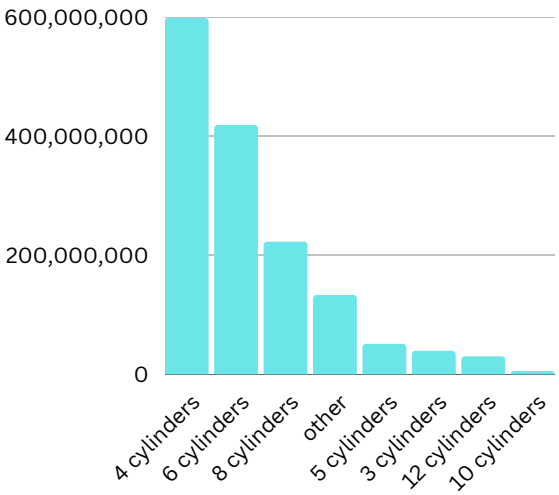




The previous year sales by total $.







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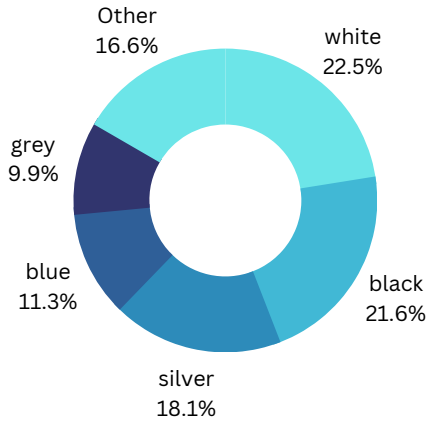

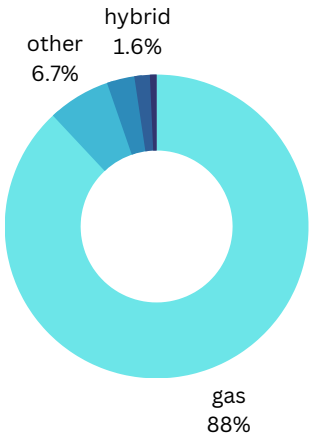

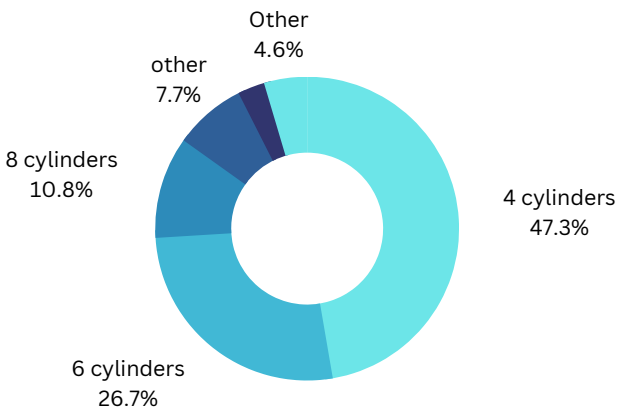

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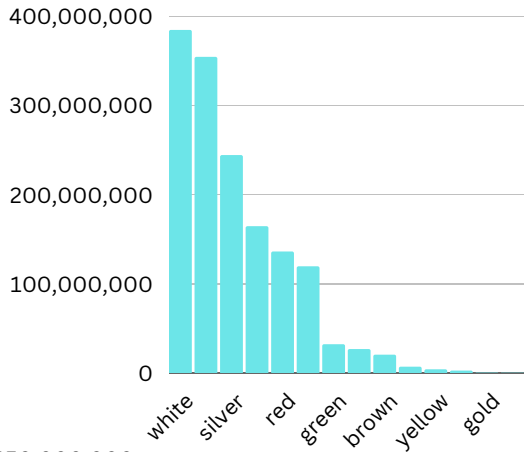
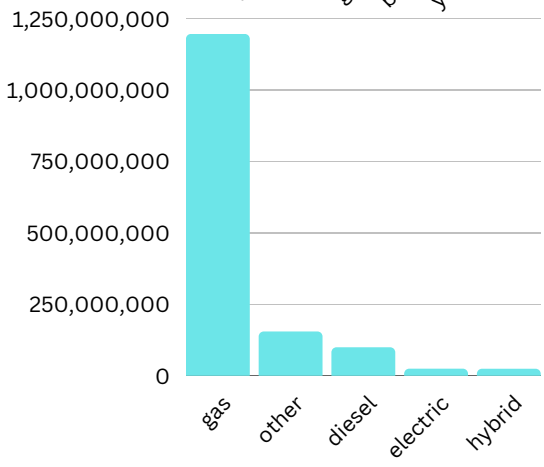
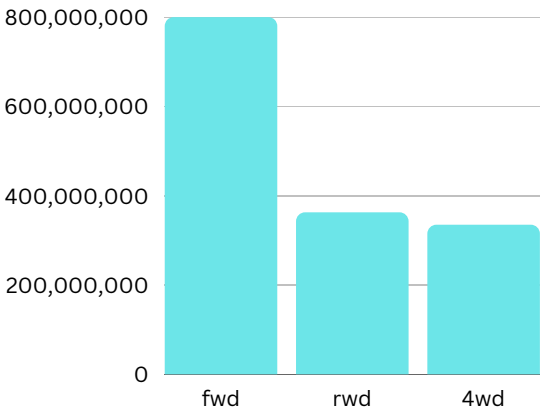


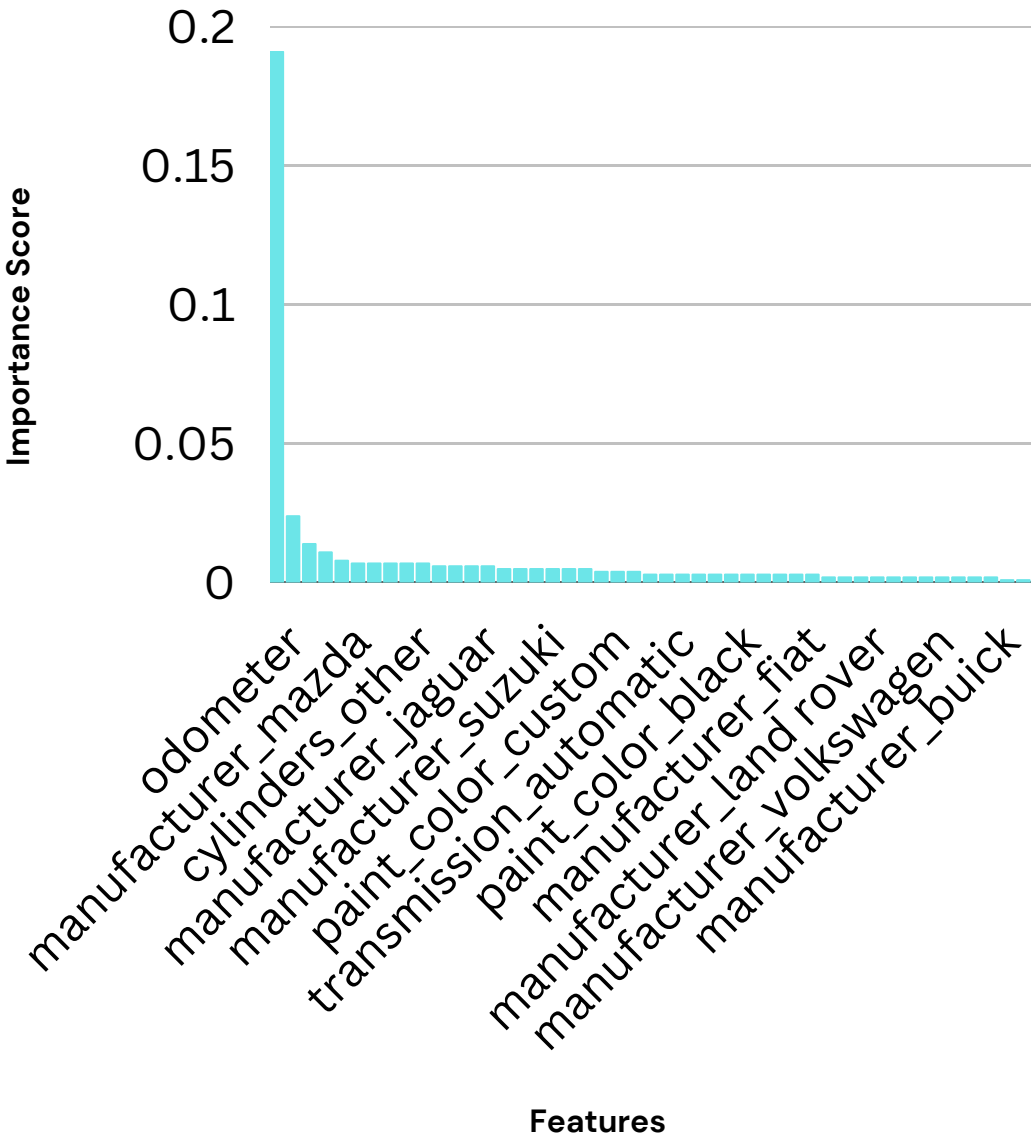




03

SUV

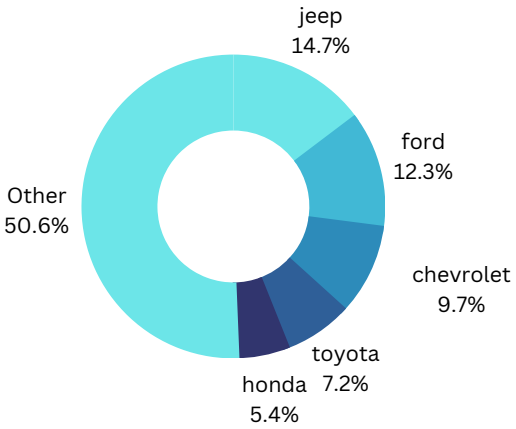
The price of the SUV is driven by features listed below on a chart. Most influential features are on the left.

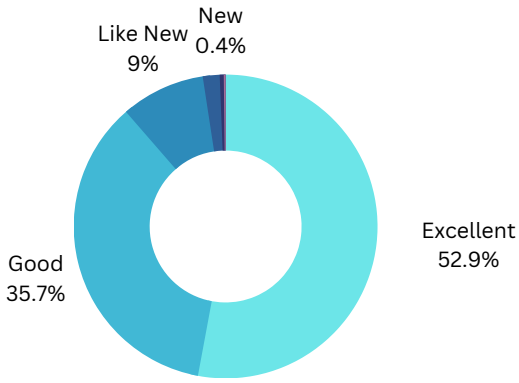


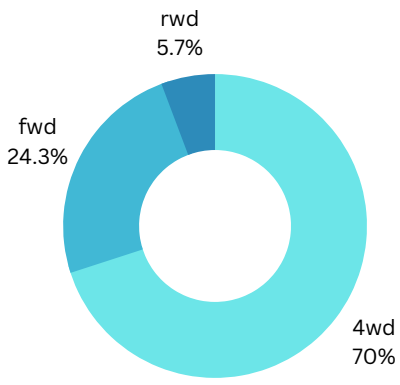
03

SUV

The previous year sales by total quantity.







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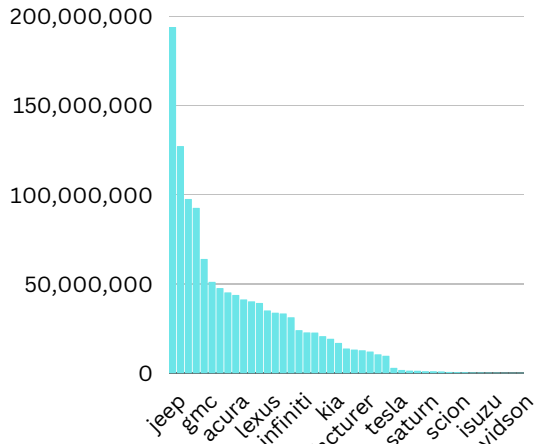

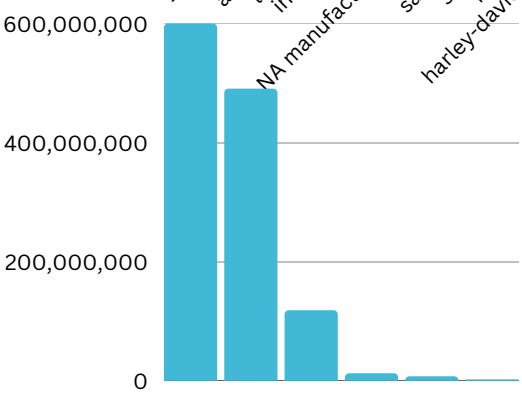

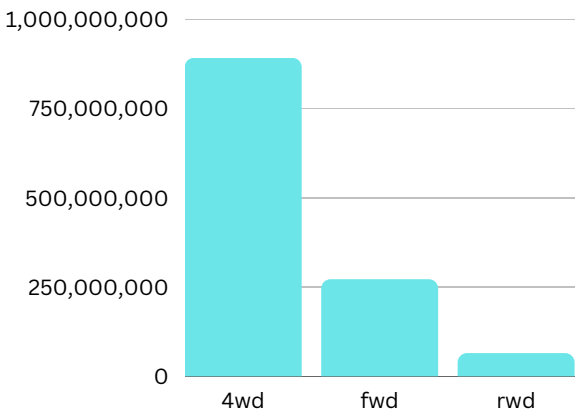

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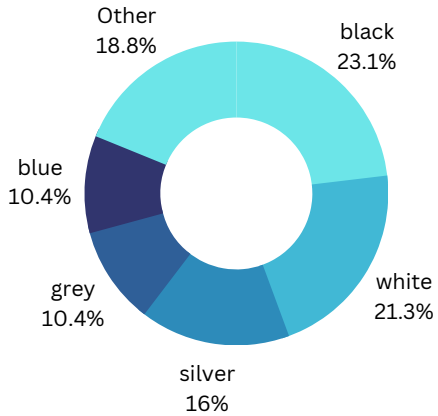

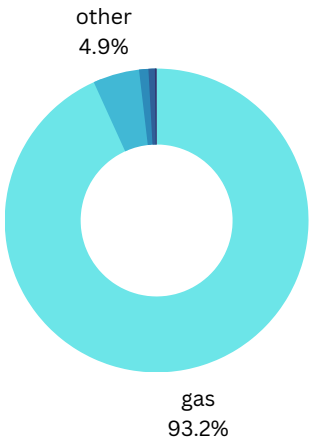

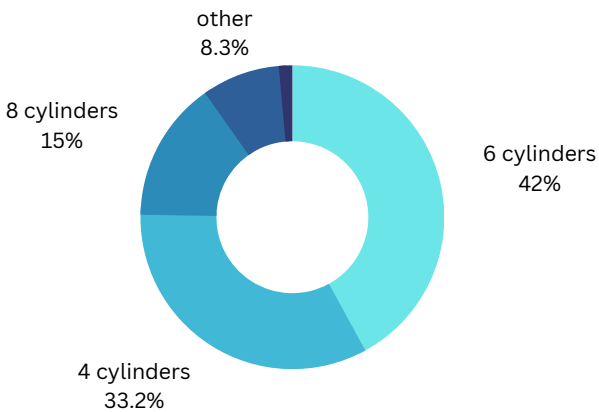

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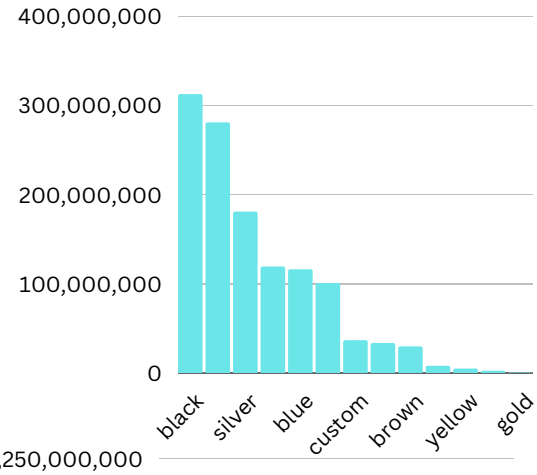
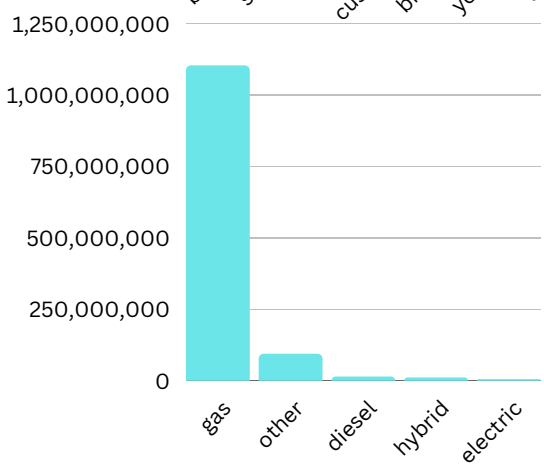
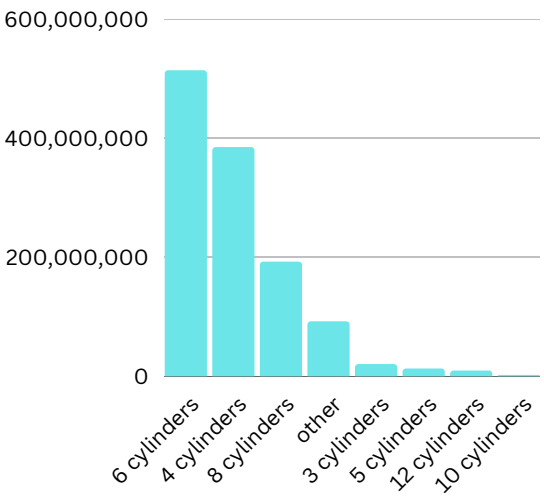


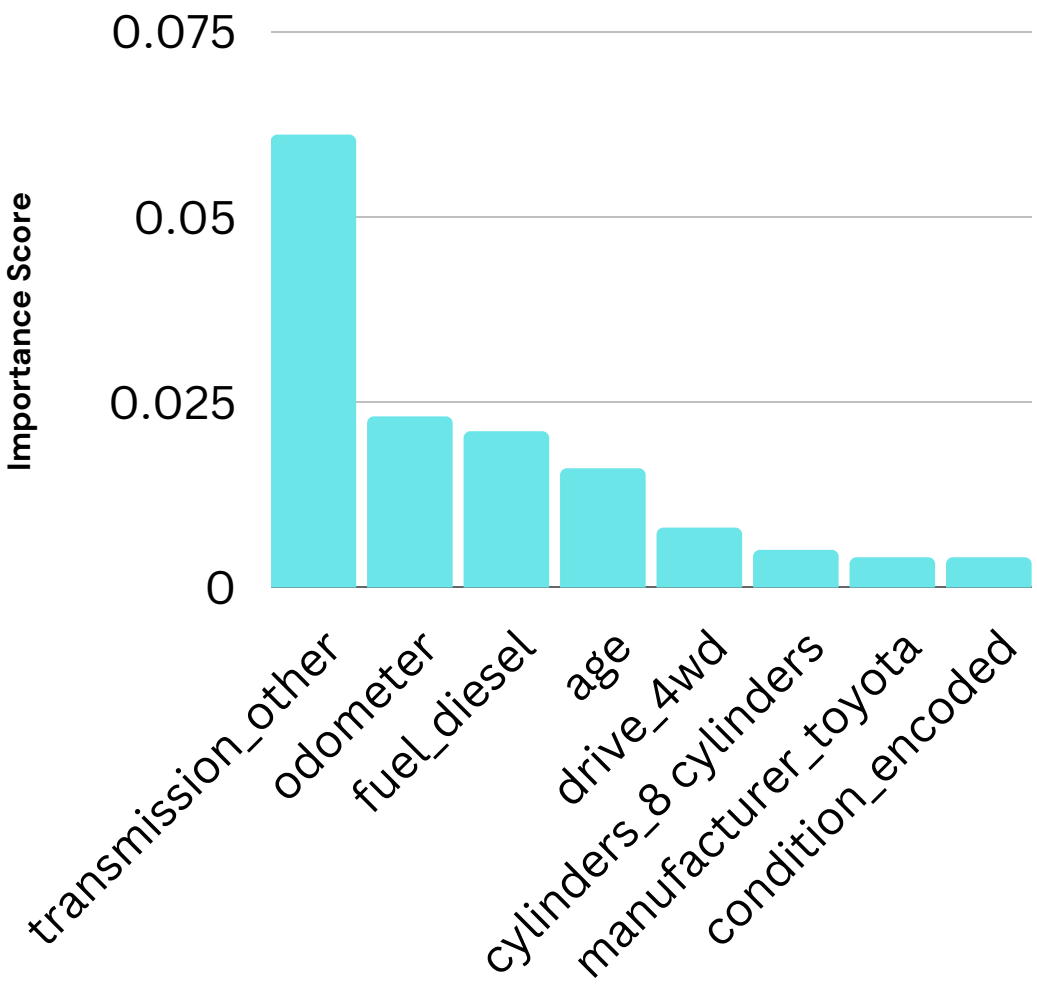




04

Pickup

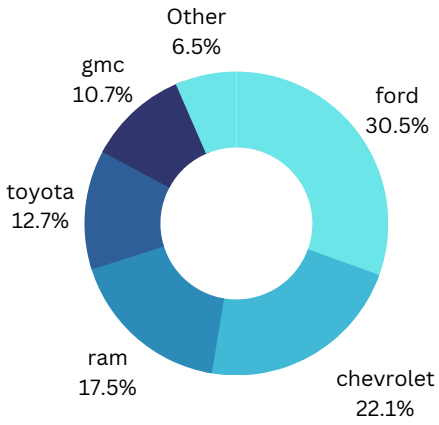
The price of the pickup is driven by features listed below on a chart. Most influential features are on the left.

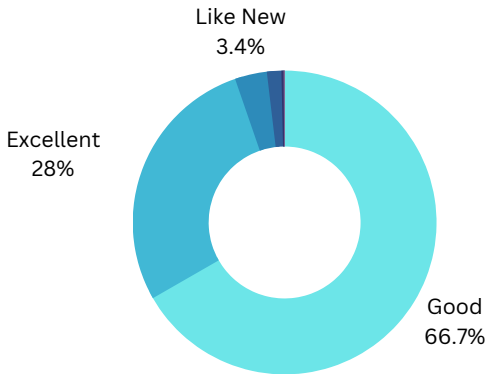


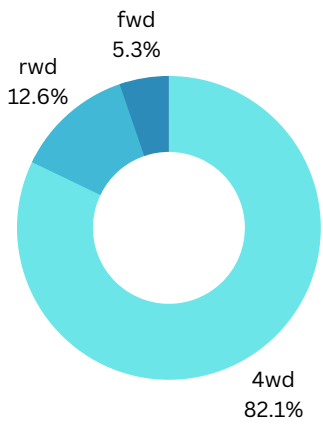
04

Pickup

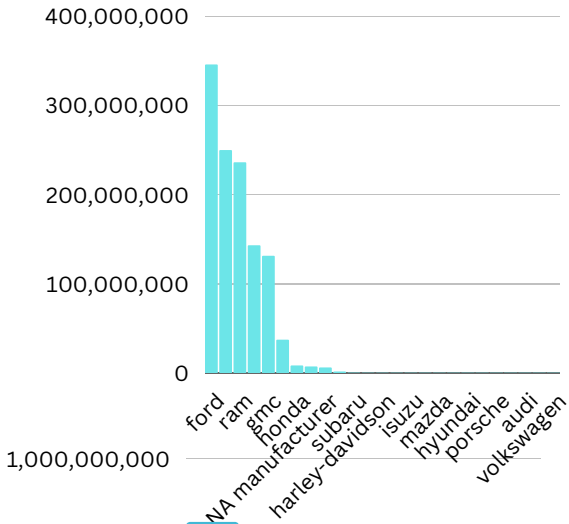
The previous year sales by total quantity.

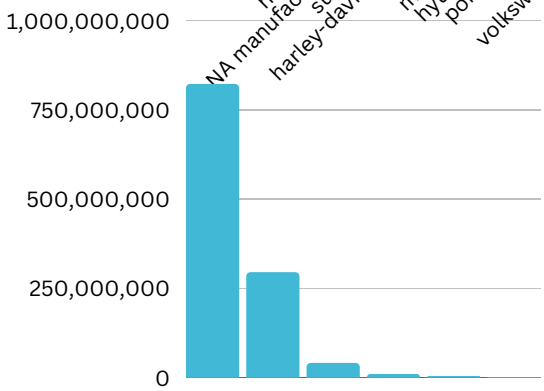


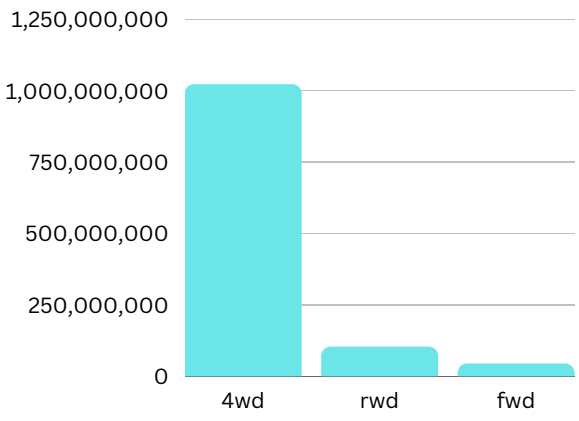




The previous year sales by total $.







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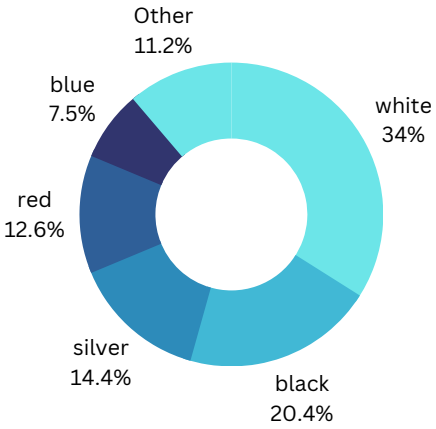
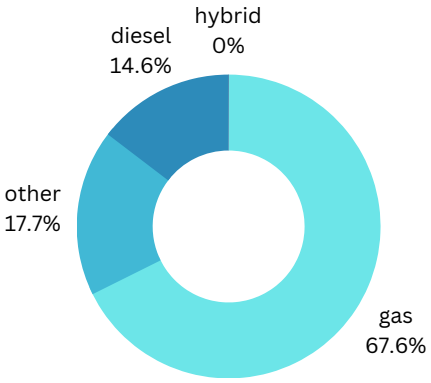
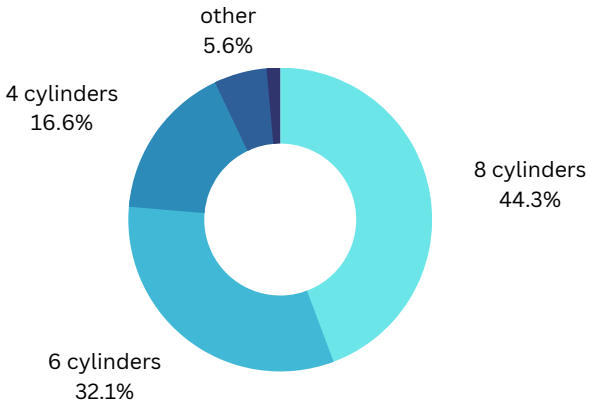
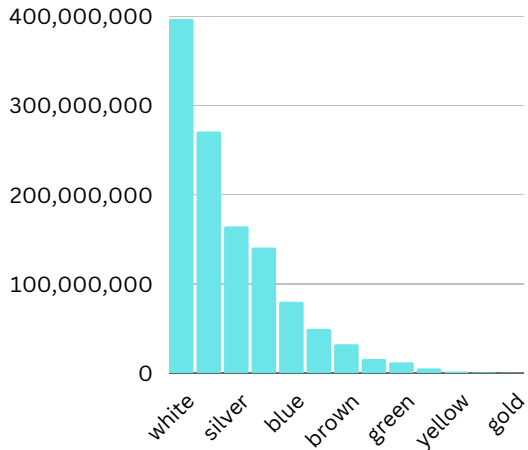
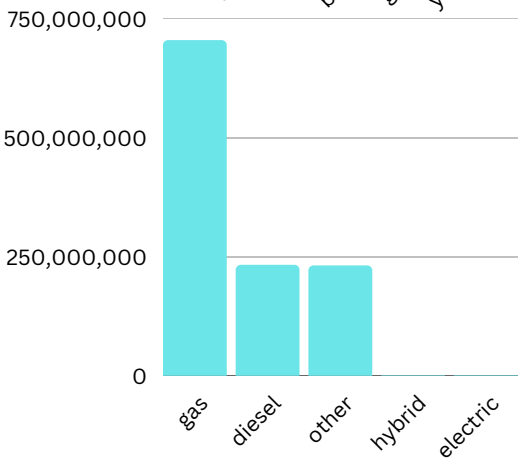


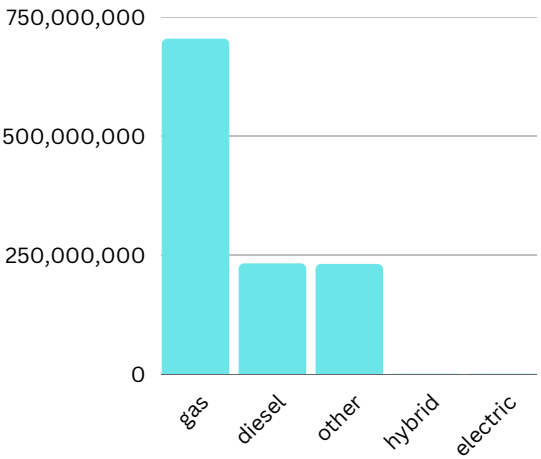




The previous year sales by total $.



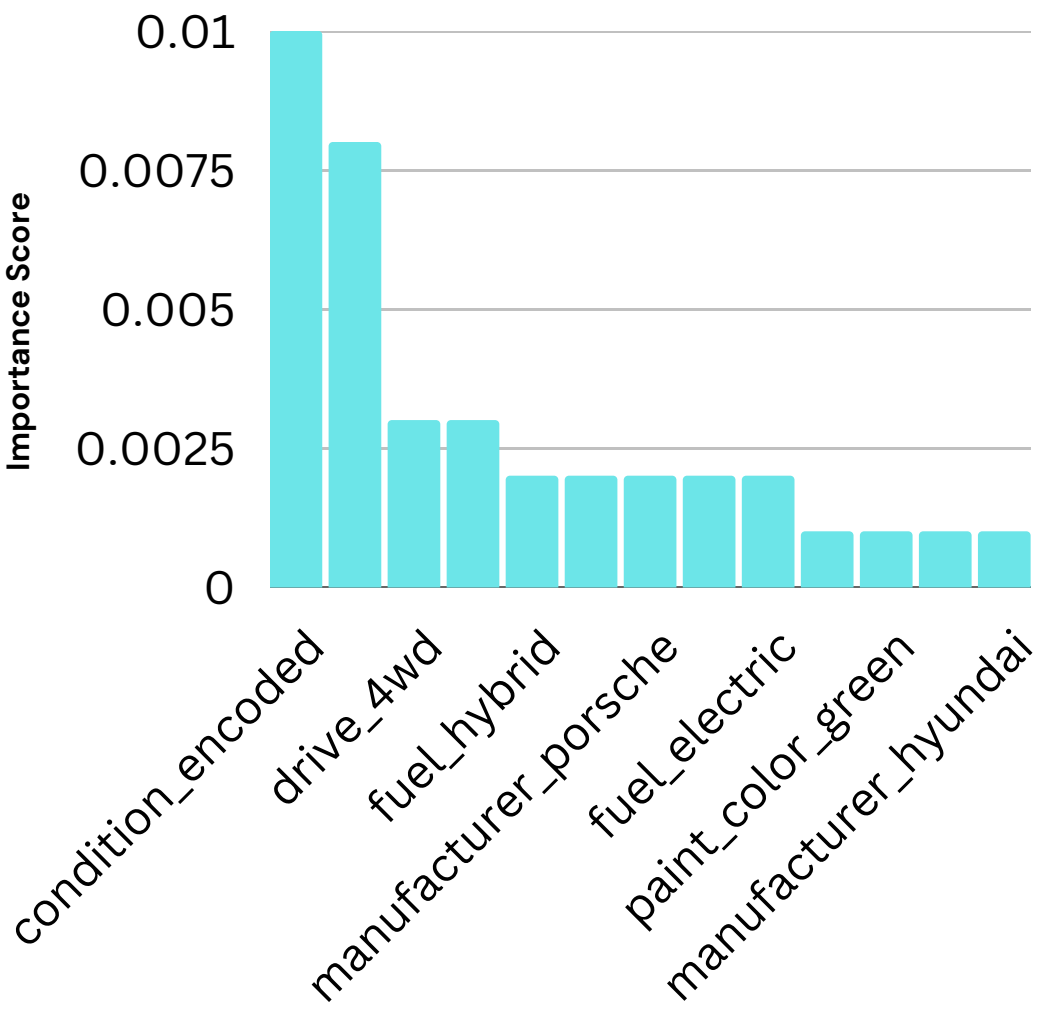




05

Truck

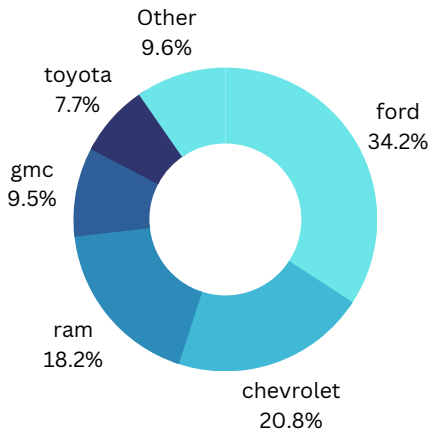
The price of the truck is driven by features listed below on a chart. Most influential features are on the left.

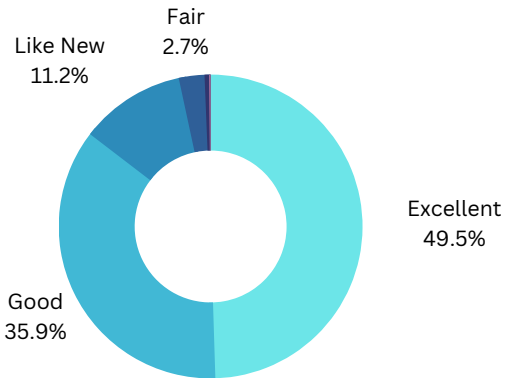


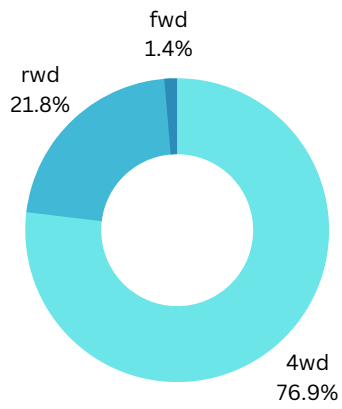
05

Truck

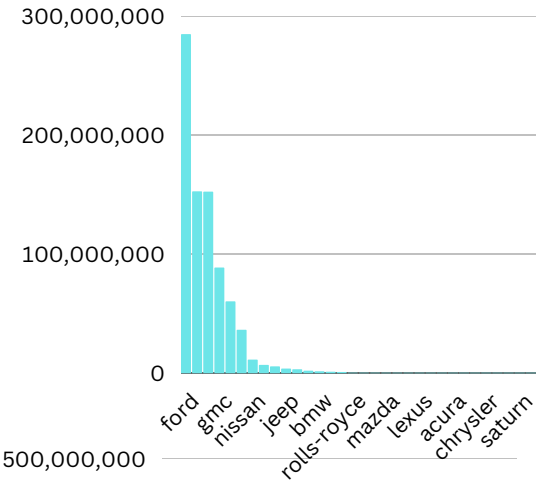
The previous year sales by total quantity.

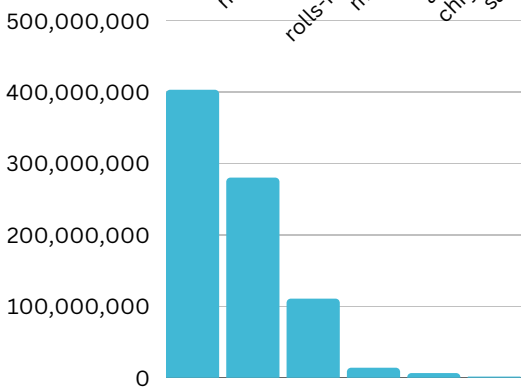


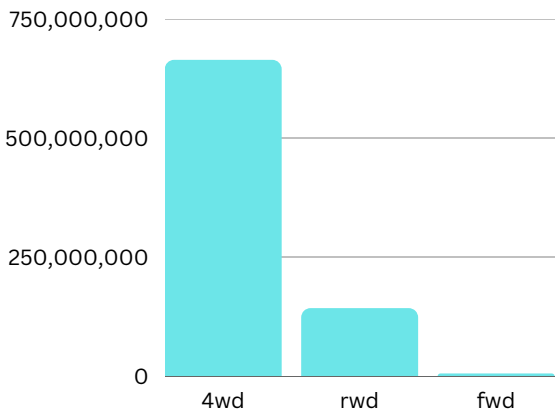




The previous year sales by total $.







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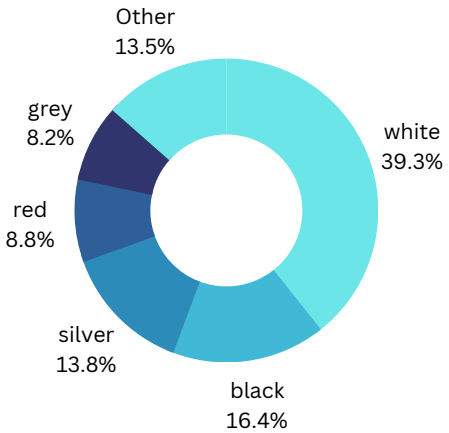

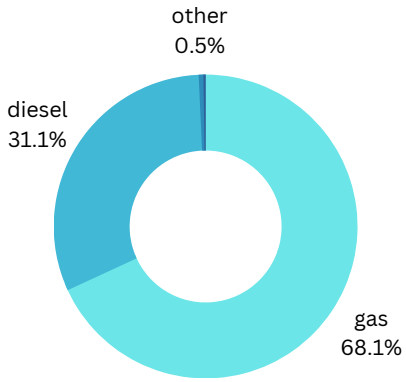

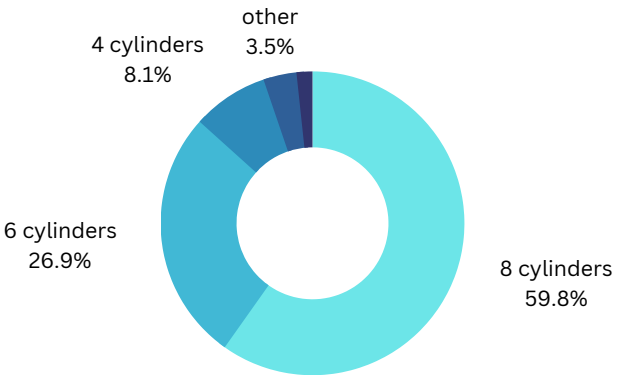

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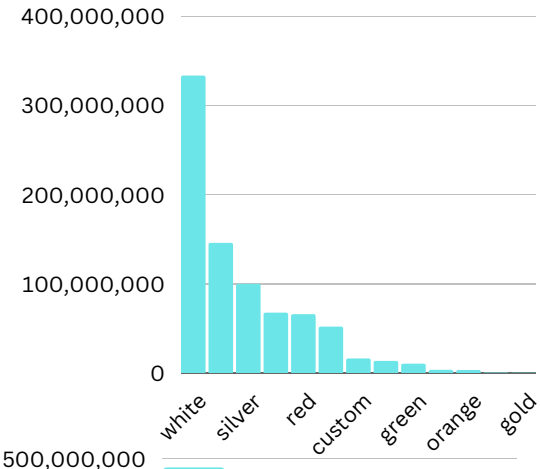
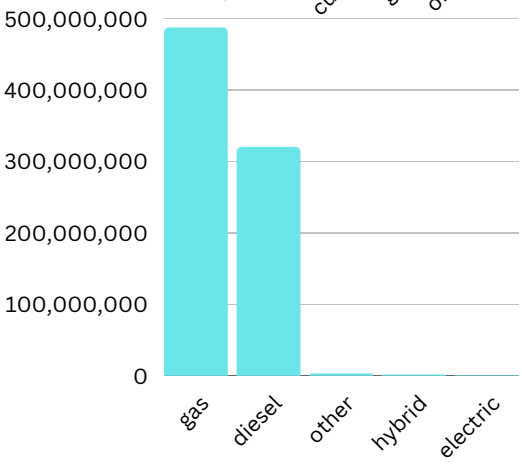
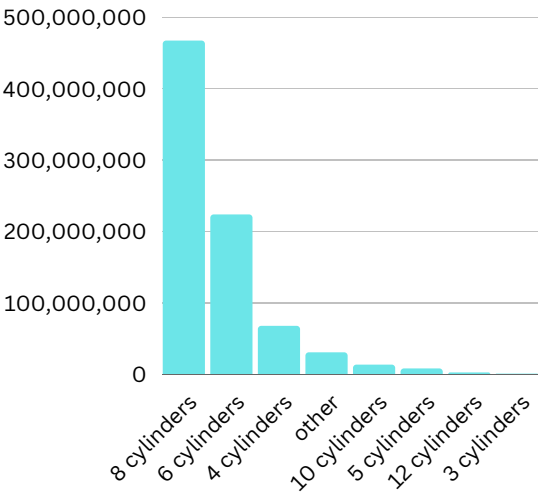


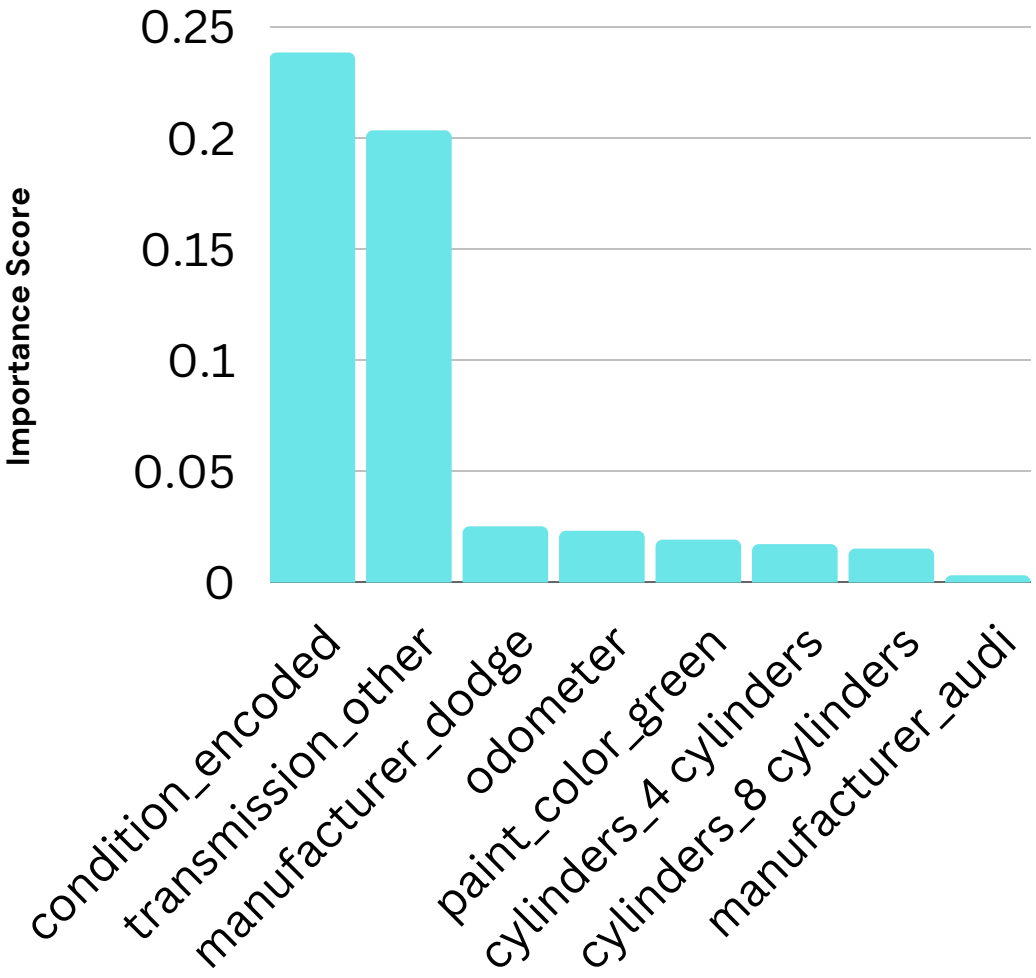




06

Coupe

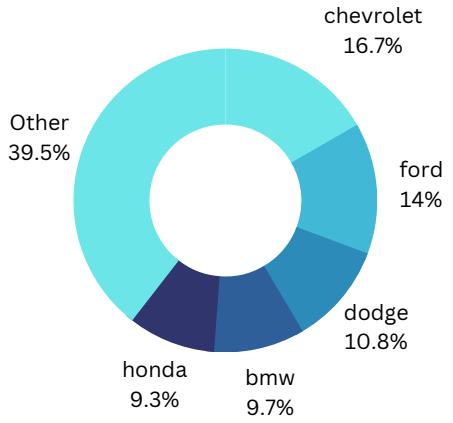
The price of the coupe is driven by features listed below on a chart. Most influential features are on the left.

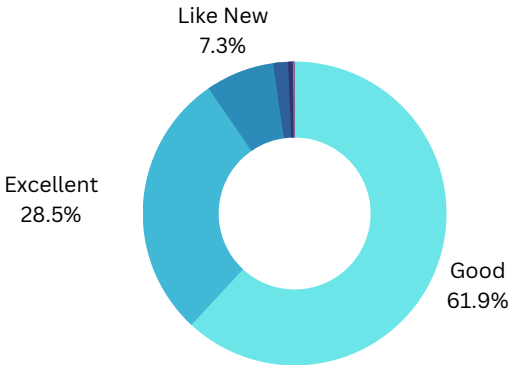


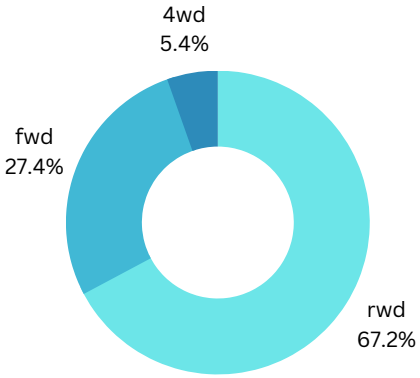
06

Coupe

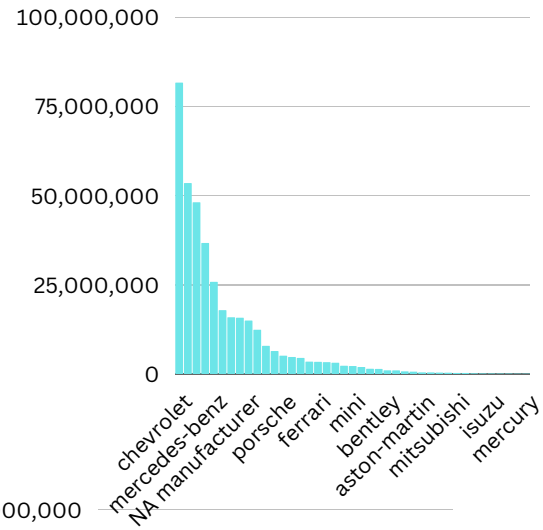
The previous year sales by total quantity.

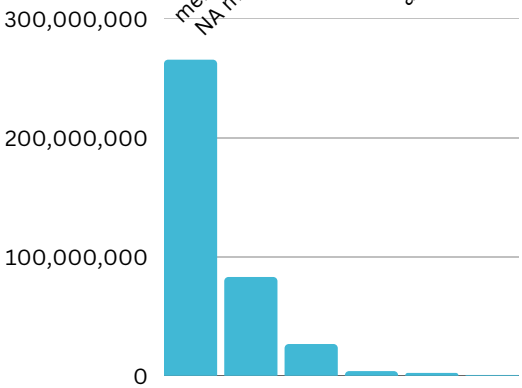


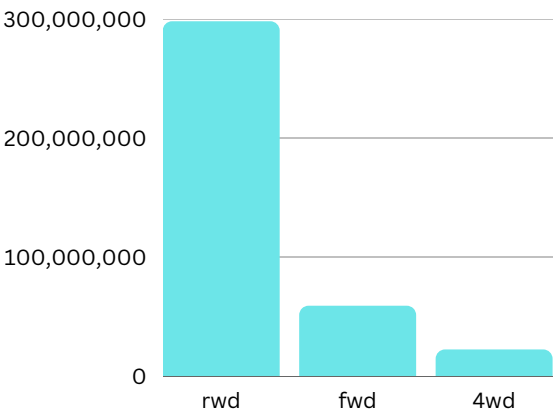




The previous year sales by total $.



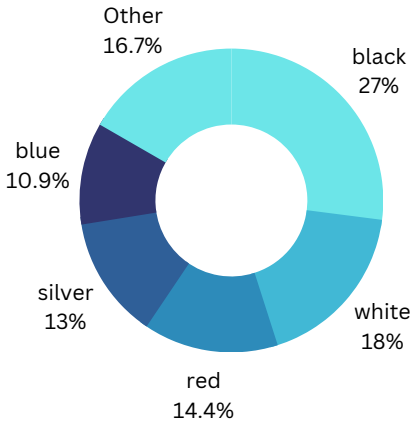


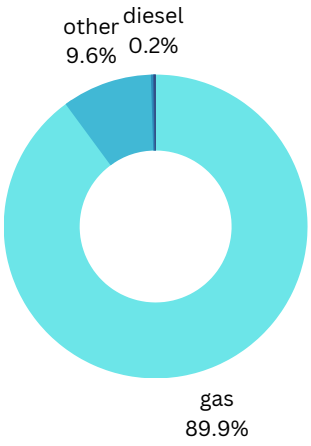


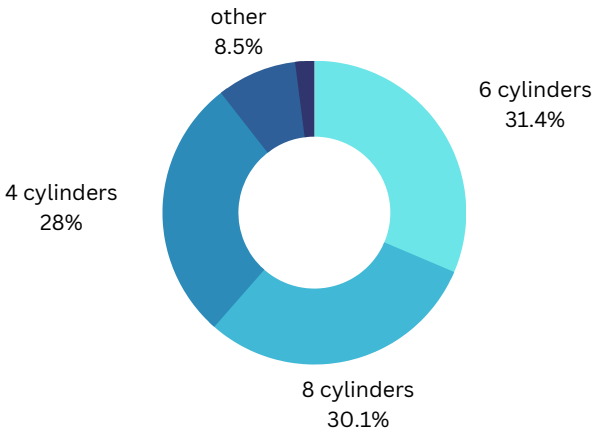
06

Coupe

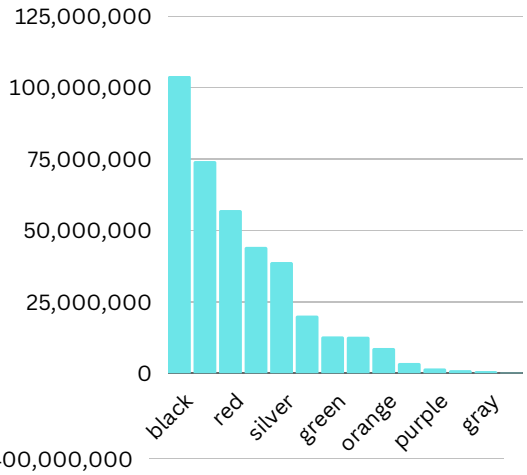
The previous year sales by total quantity.

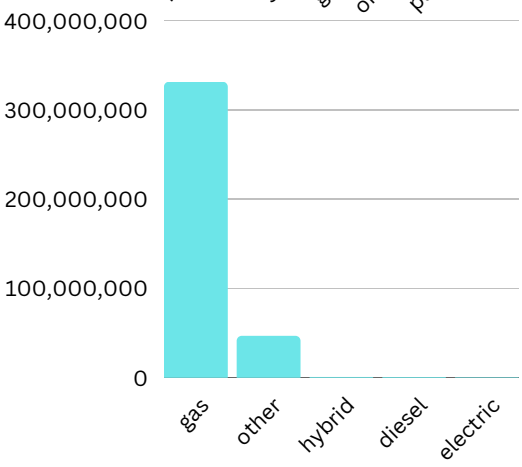


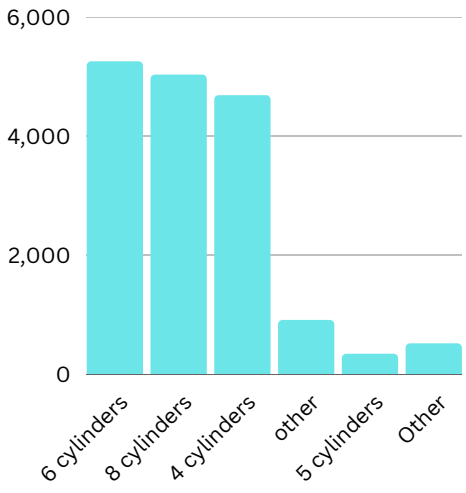




The previous year sales by total $.



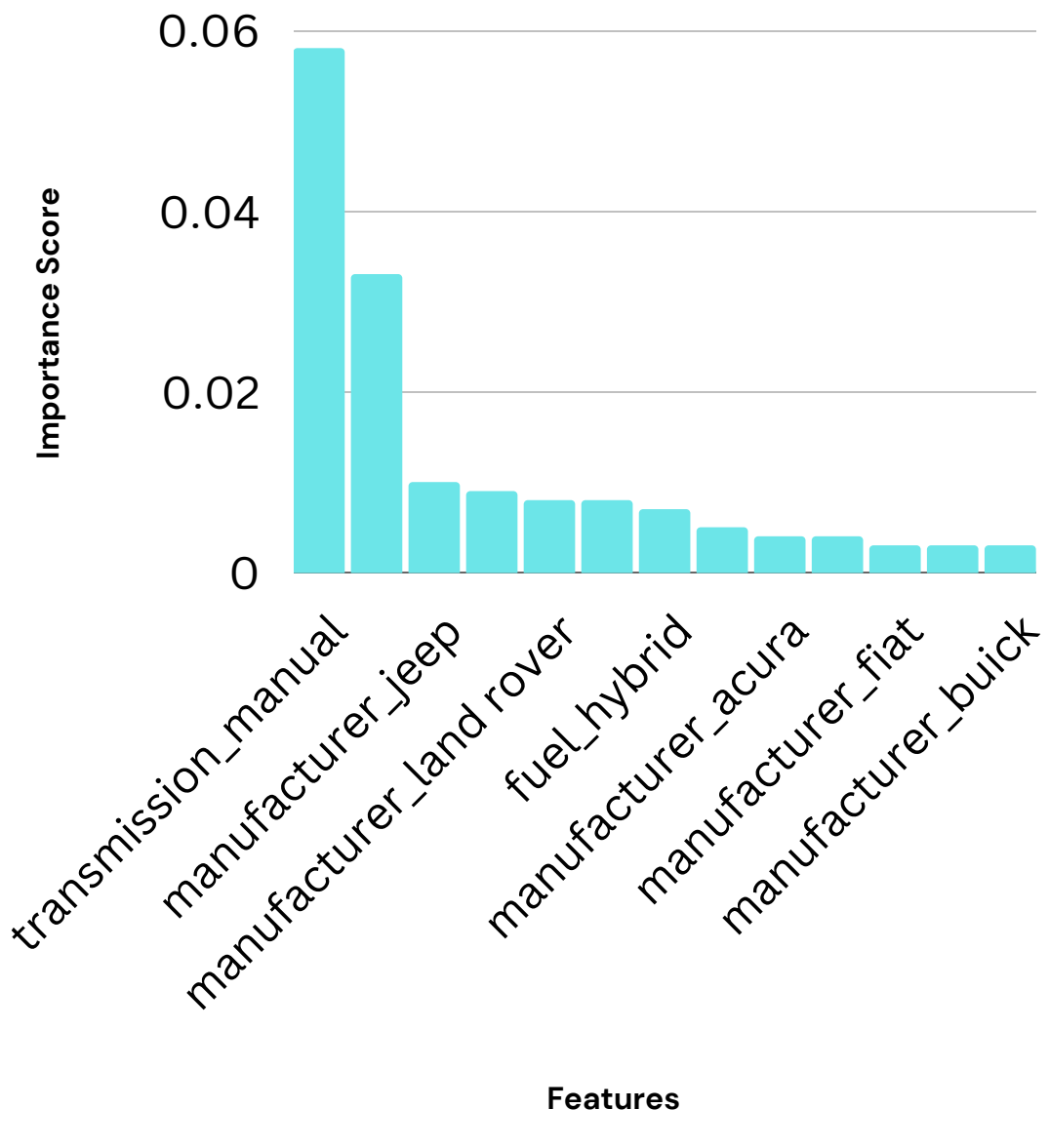




07

Hatchback

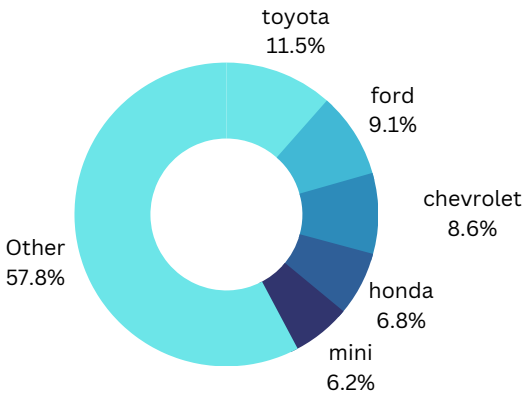
The price of the hatchback is driven by features listed below on a chart. Most influential features are on the left.



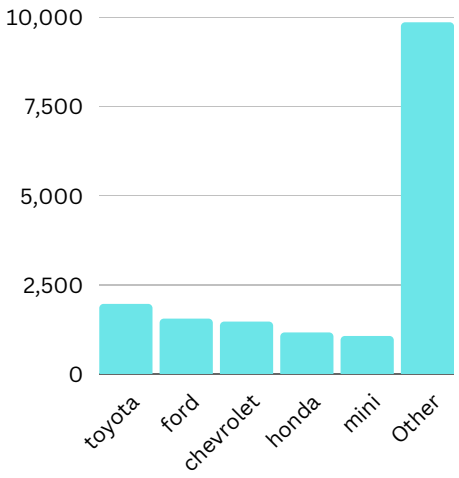
07

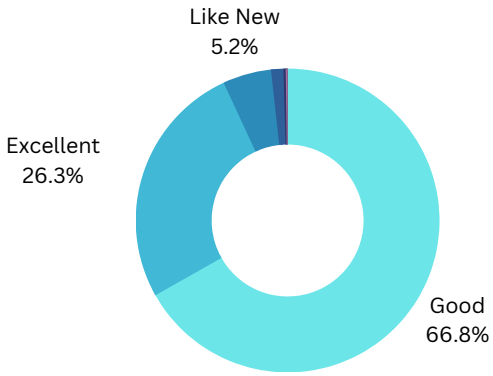
Hatchback

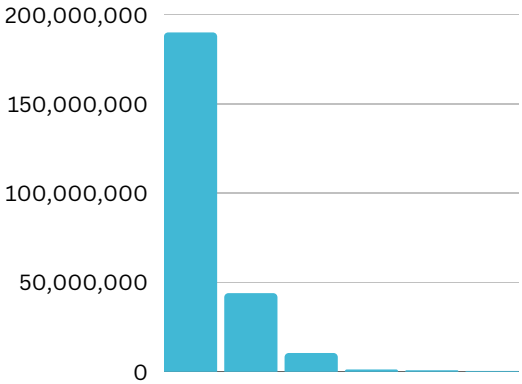
The previous year sales by total quantity.

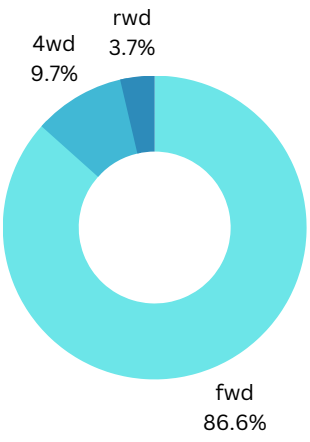


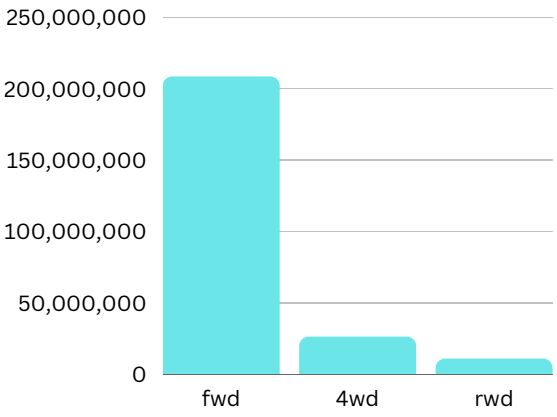
The previous year sales by total $.







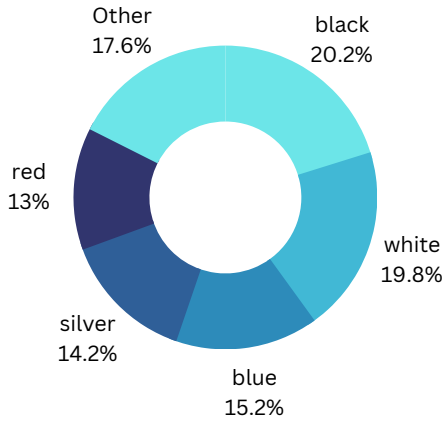


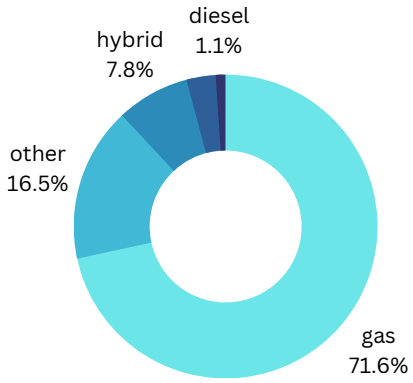


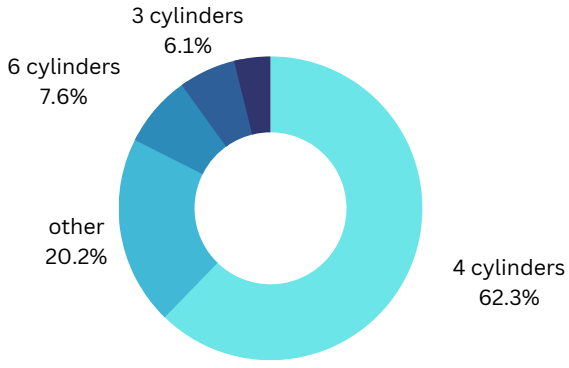
07

Hatchback

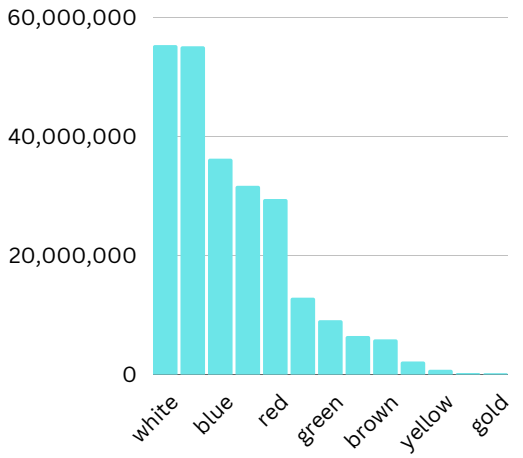
The previous year sales by total quantity.

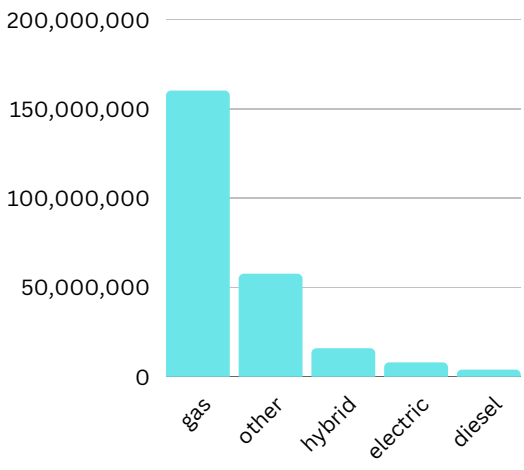


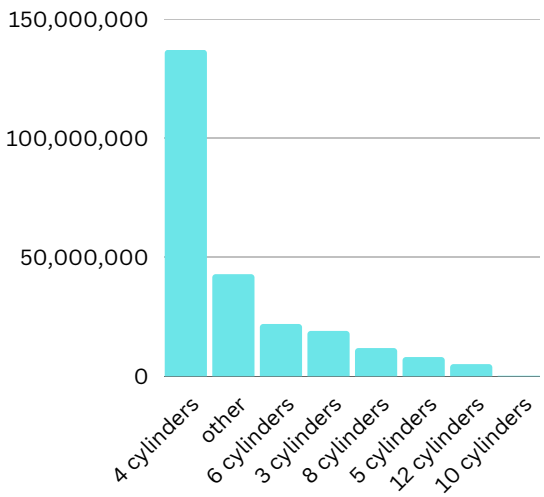




The previous year sales by total $.



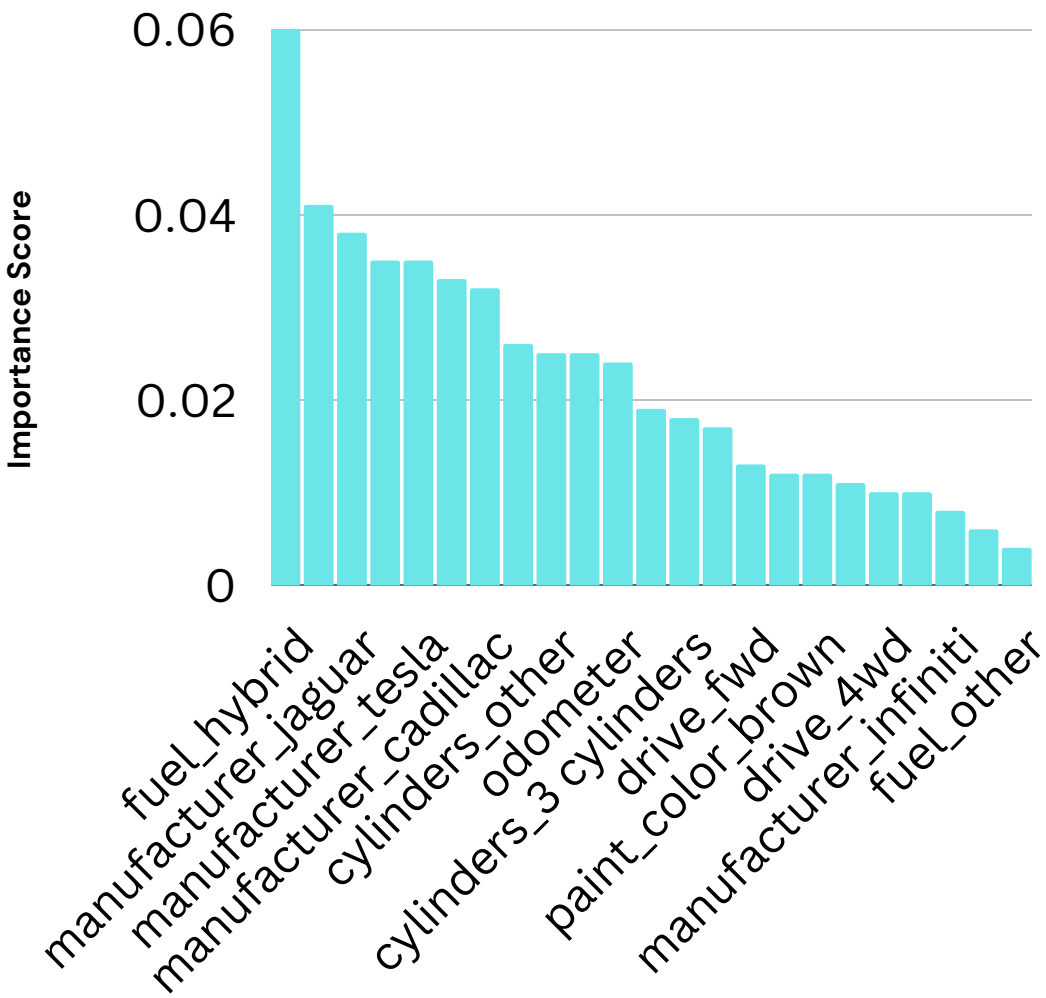




08

Convertible

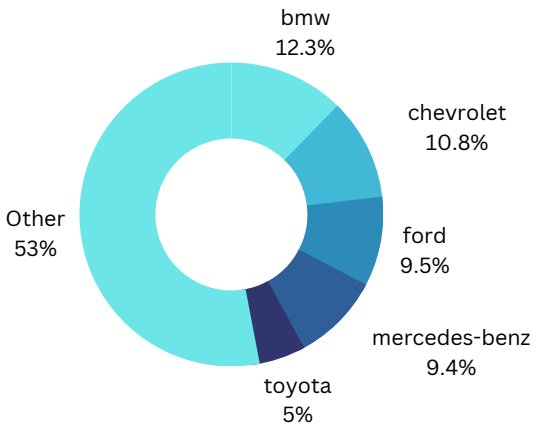
The price of the convertible is driven by features listed below on a chart. Most influential features are on the left.



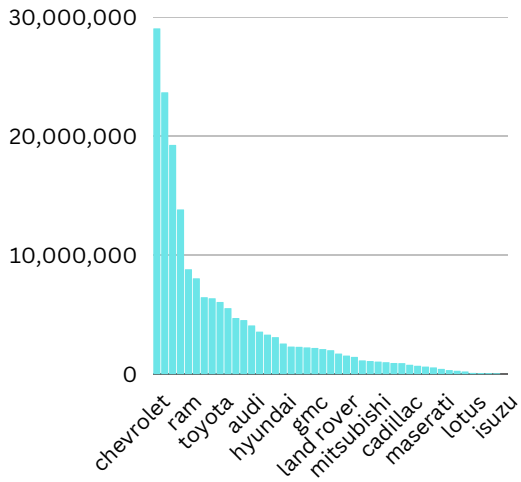
08

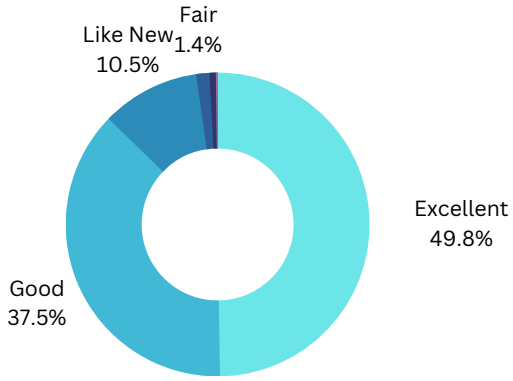
Convertible

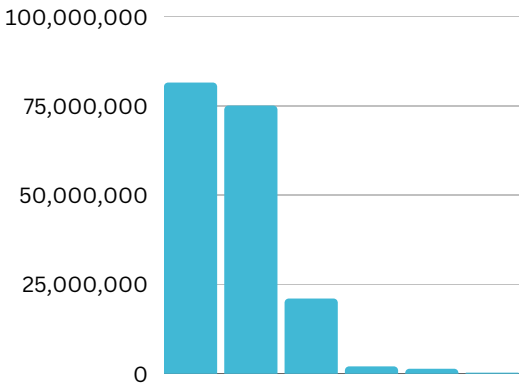
The previous year sales by total quantity.

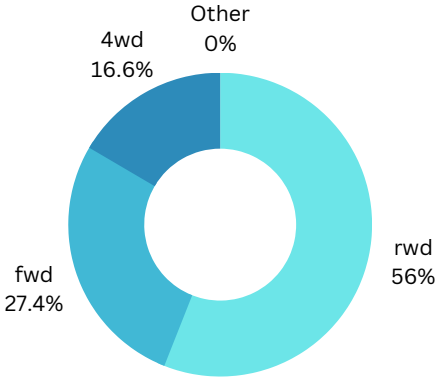


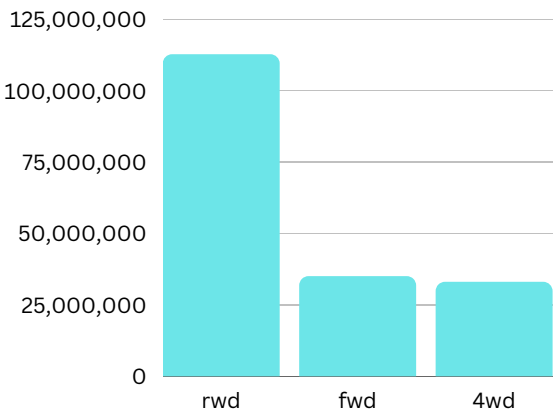
The previous year sales by total $.







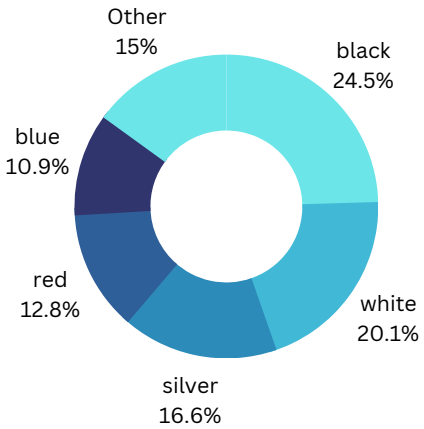


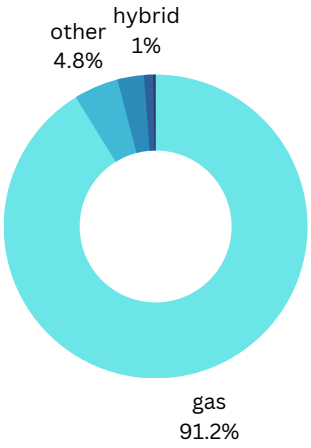


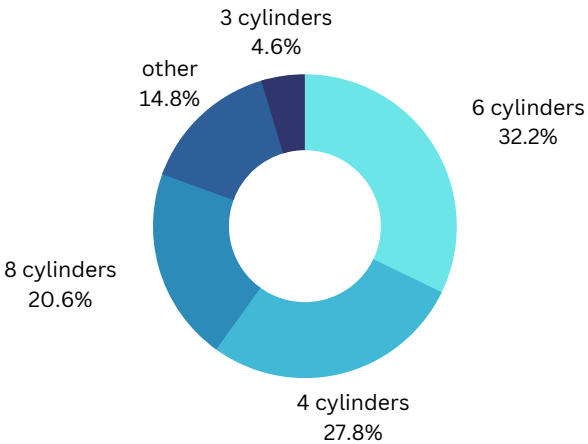
08

Convertible

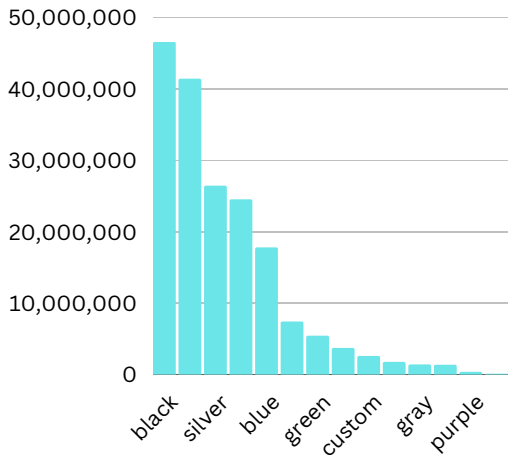
The previous year sales by total quantity.

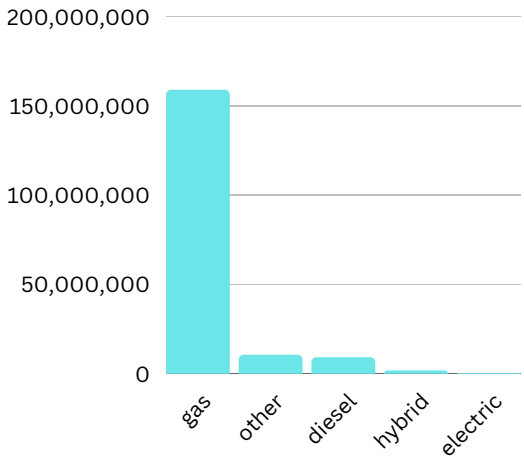


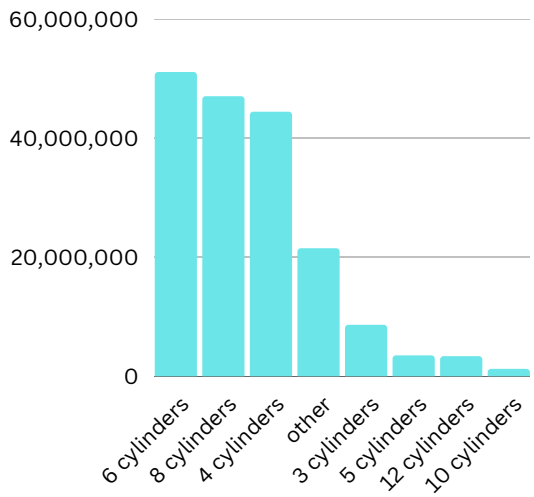




The previous year sales by total $.



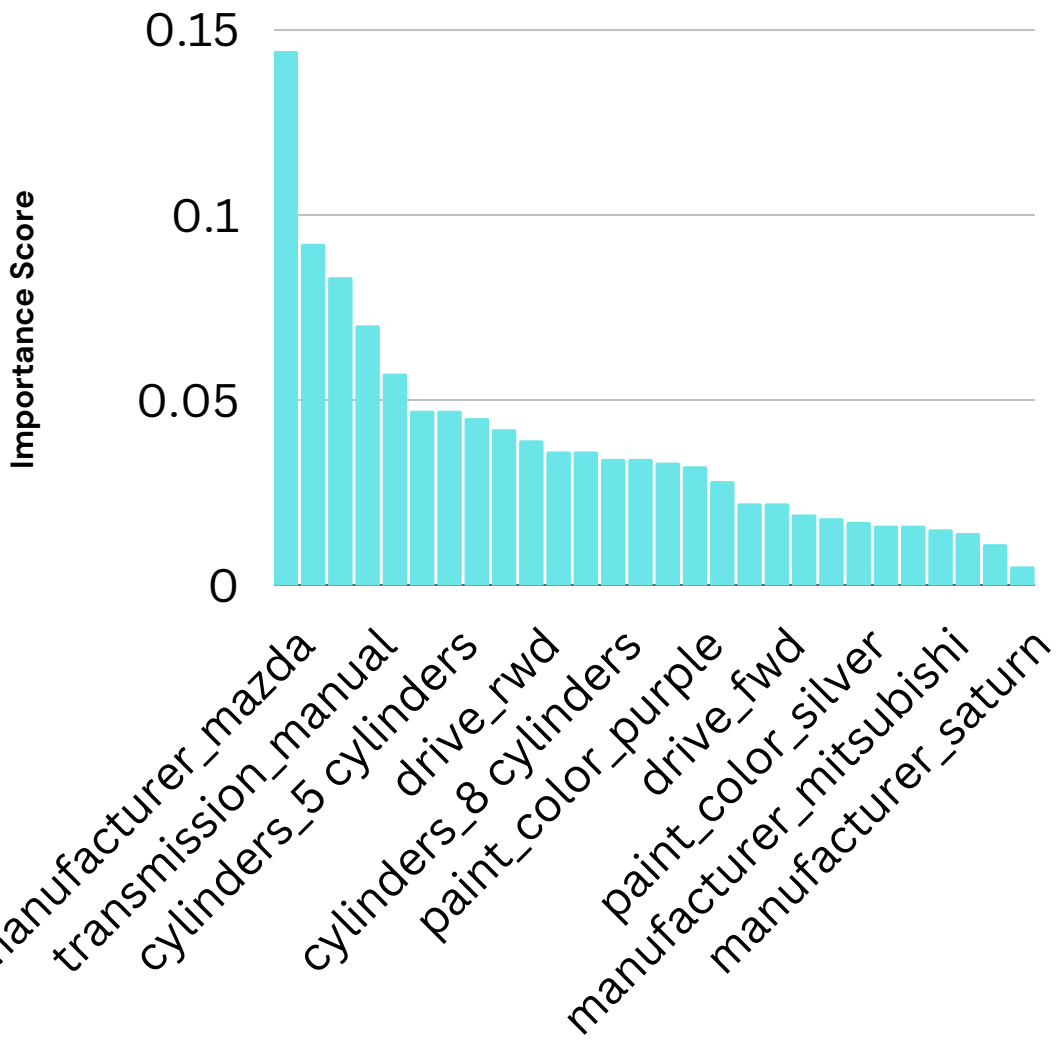




09

Van

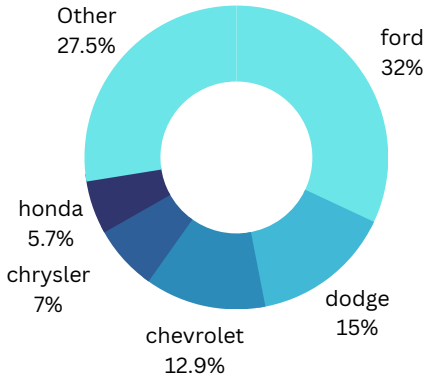
The price of the van is driven by features listed below on a chart. Most influential features are on the left.

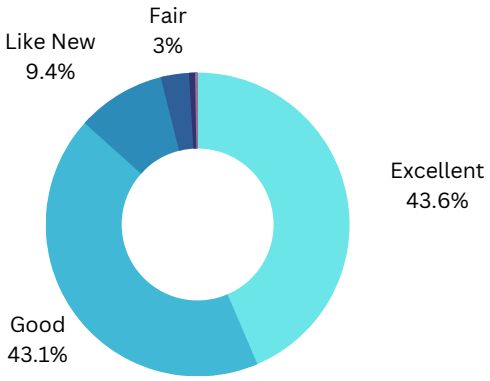


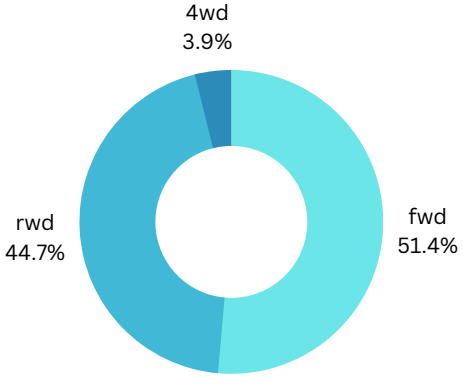
09

Van

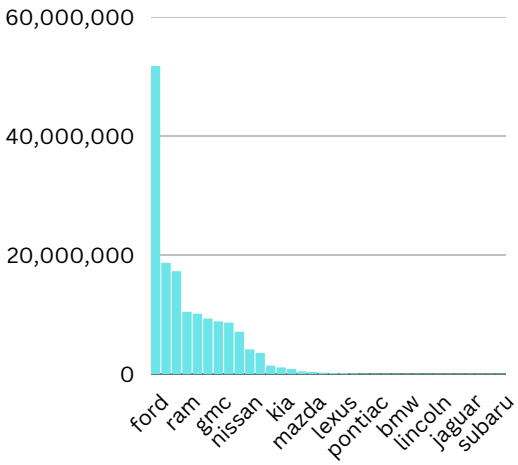
The previous year sales by total quantity.

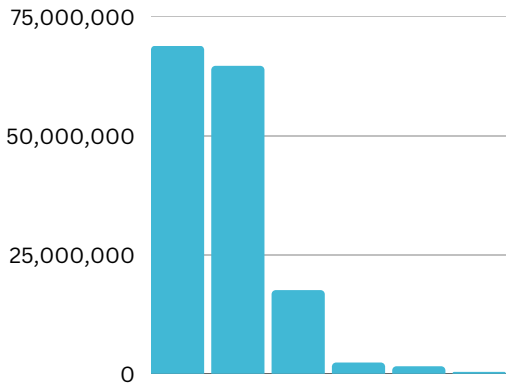


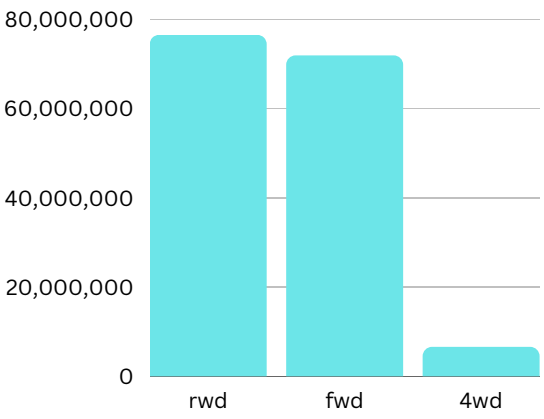




The previous year sales by total $.



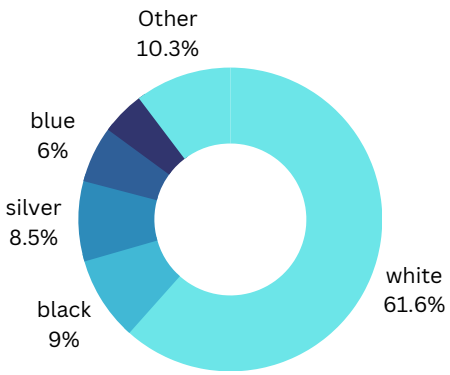


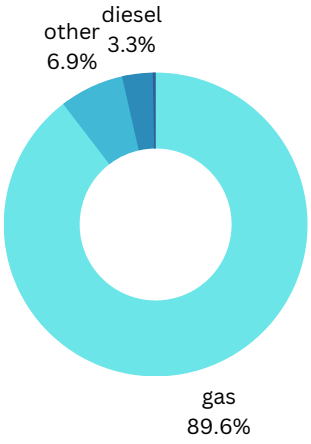


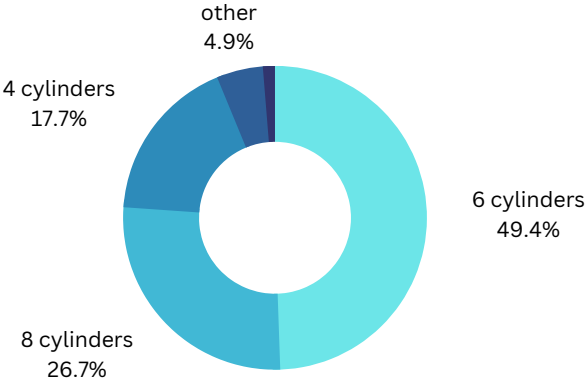
09

Van

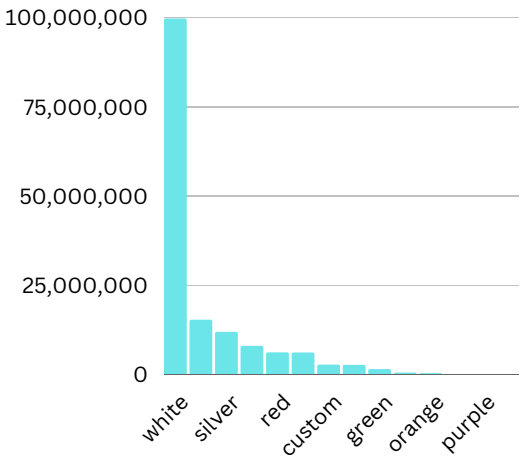
The previous year sales by total quantity.

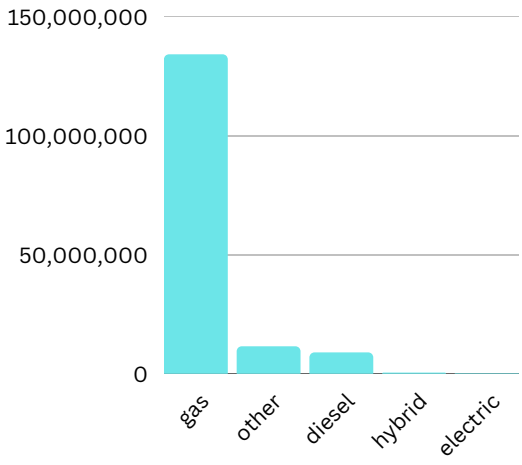


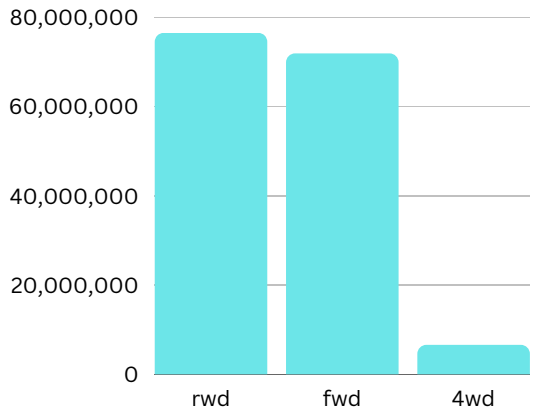




The previous year sales by total $.



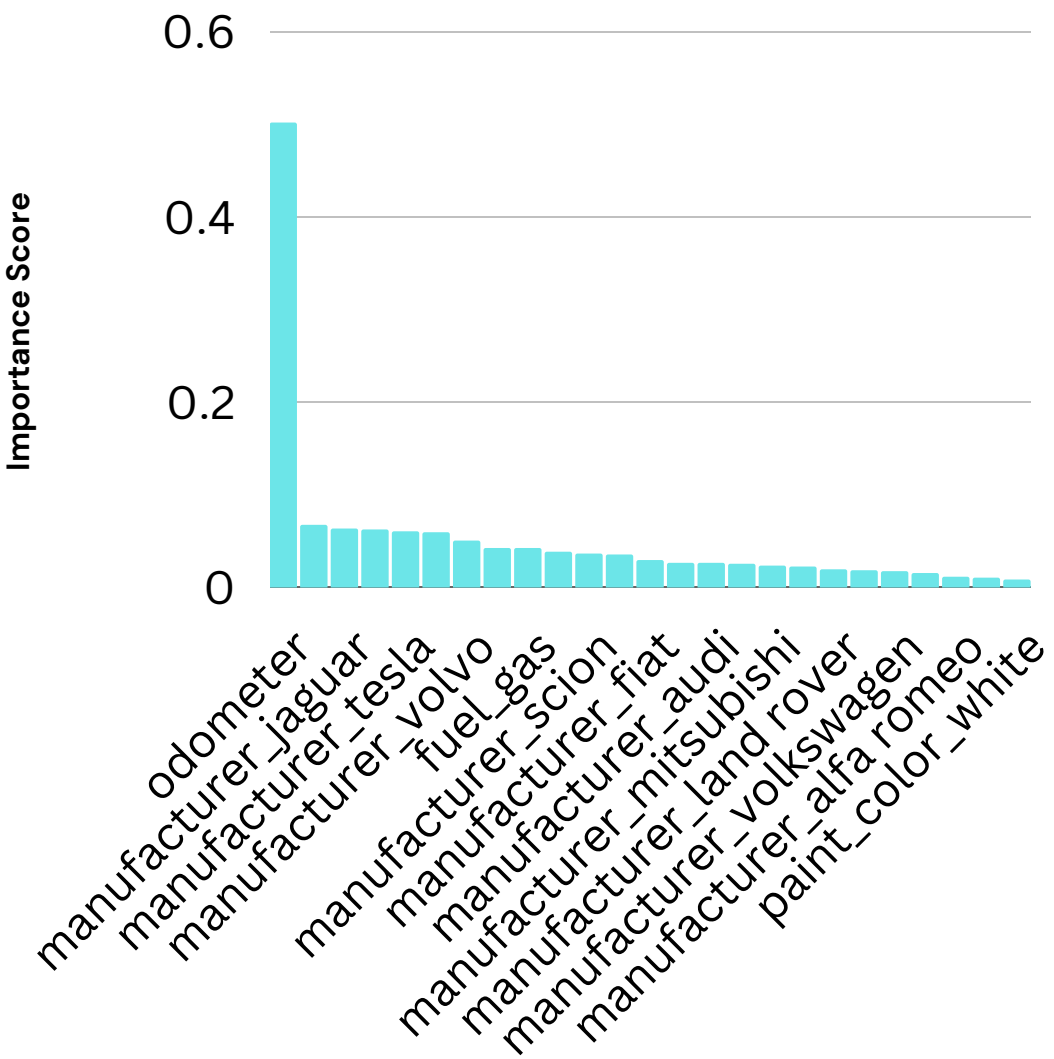




10

Wagon

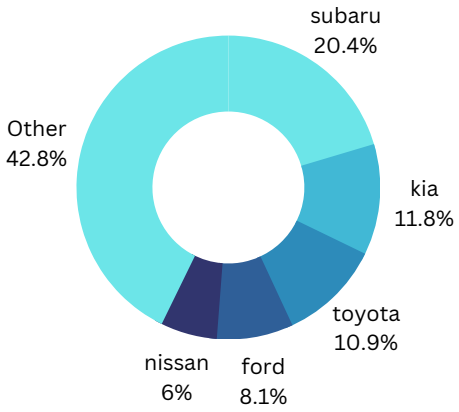
The price of the wagon is driven by features listed below on a chart. Most influential features are on the left.

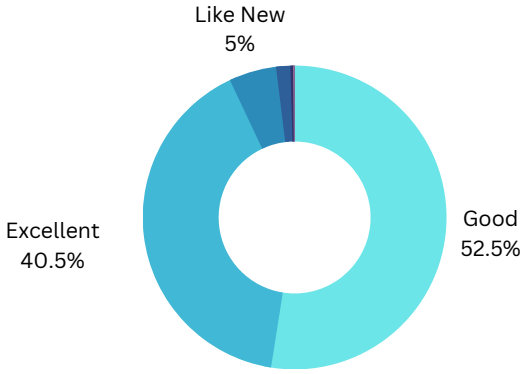


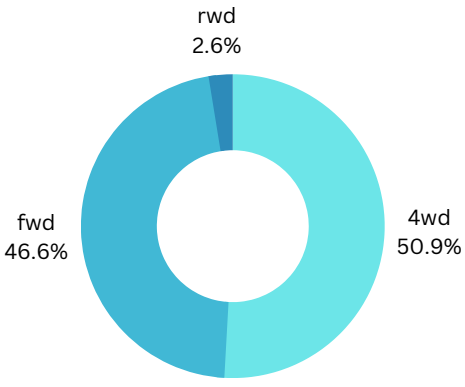
10

Wagon

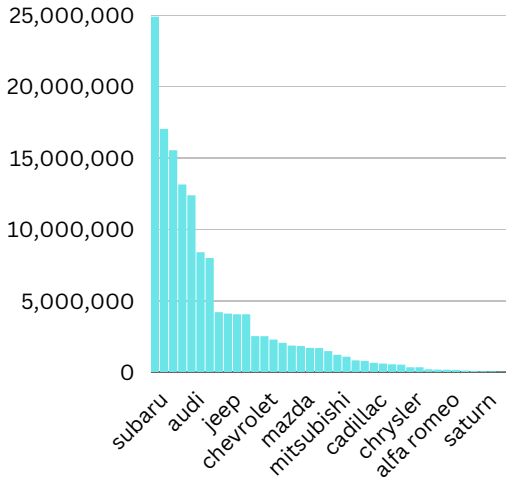
The previous year sales by total quantity.

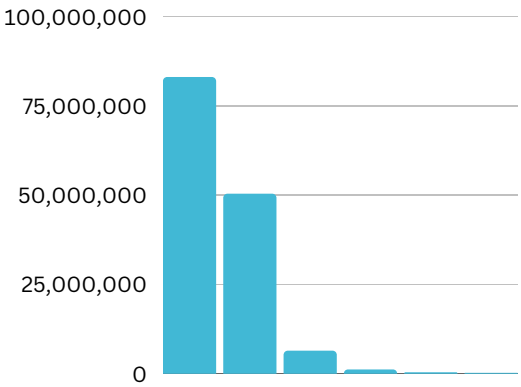


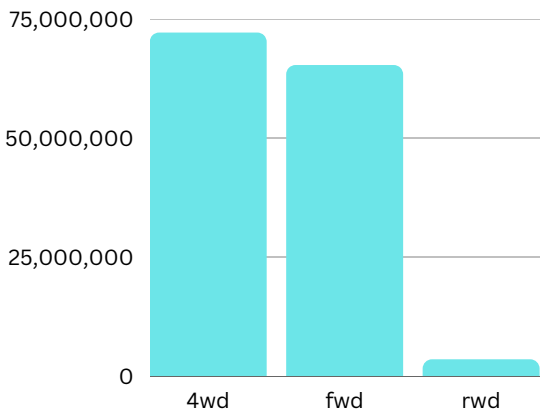




The previous year sales by total $.



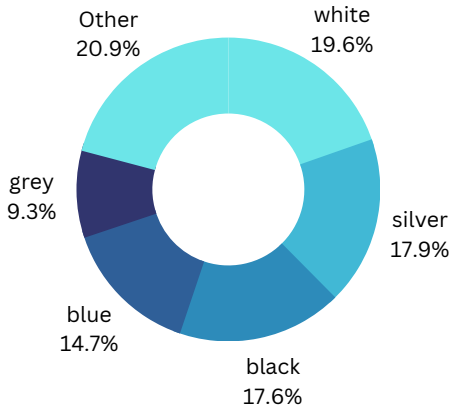


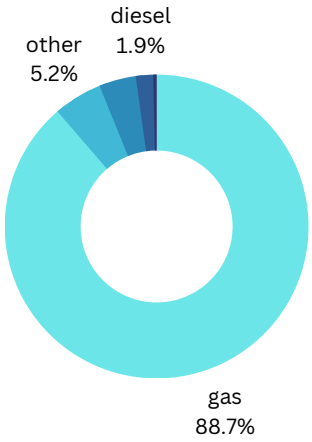


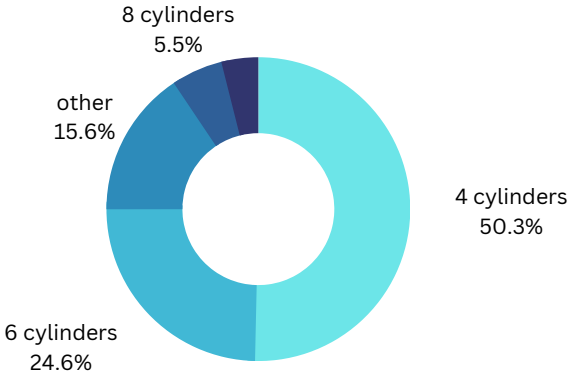
10

Wagon

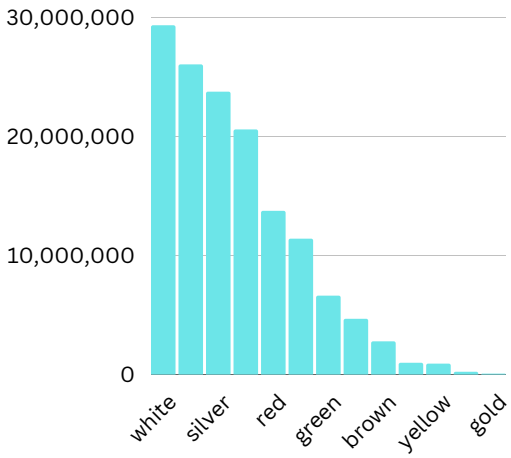
The previous year sales by total quantity.

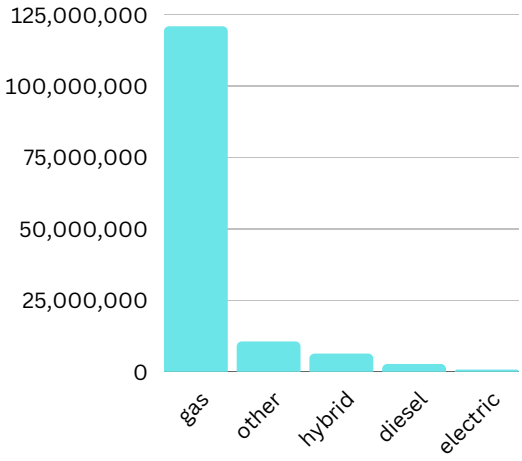


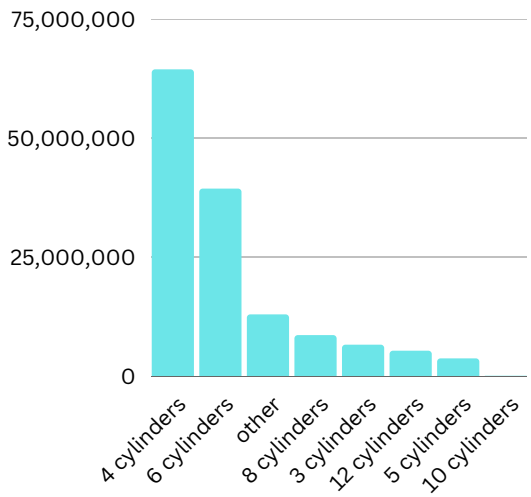




The previous year sales by total $.



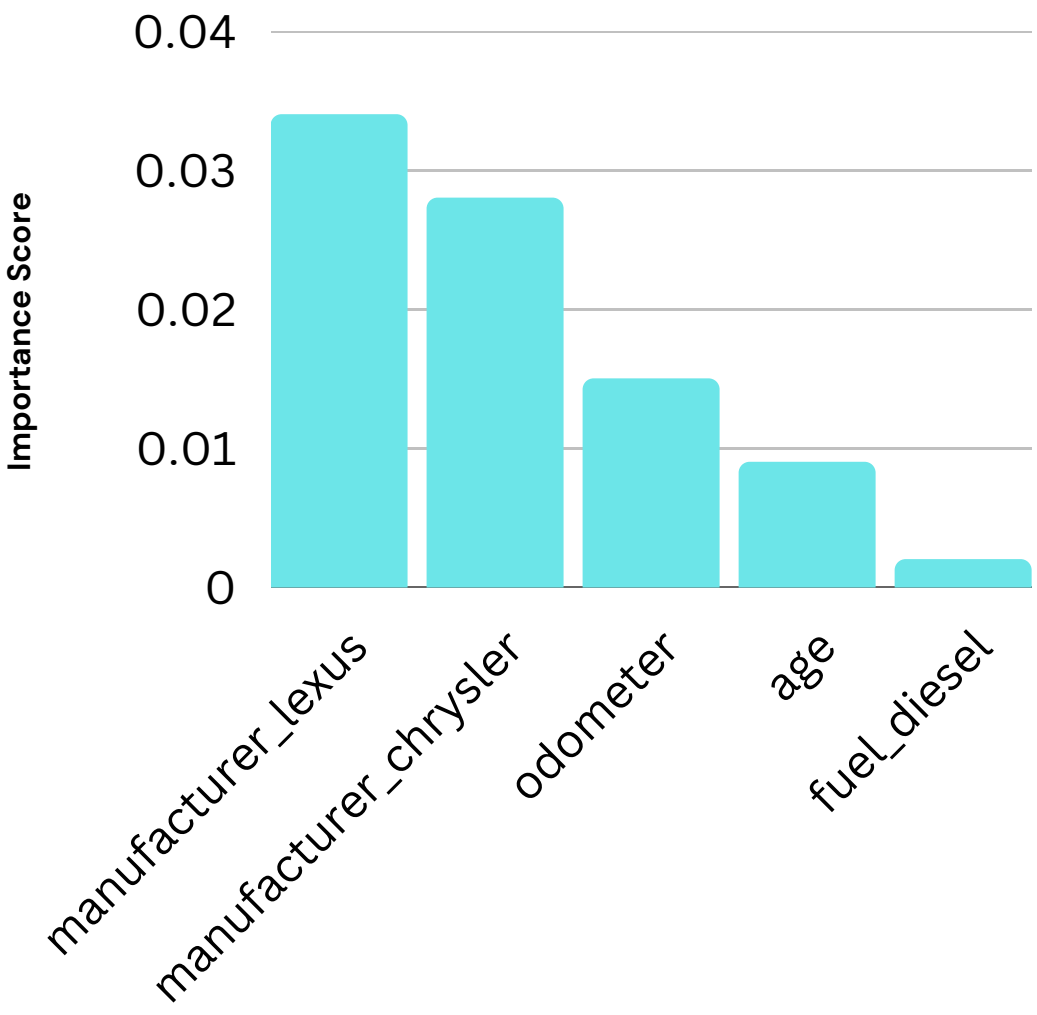




11

Minivan

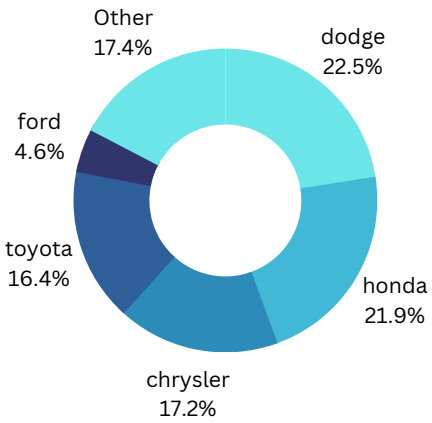
The price of the minivan is driven by features listed below on a chart. Most influential features are on the left.

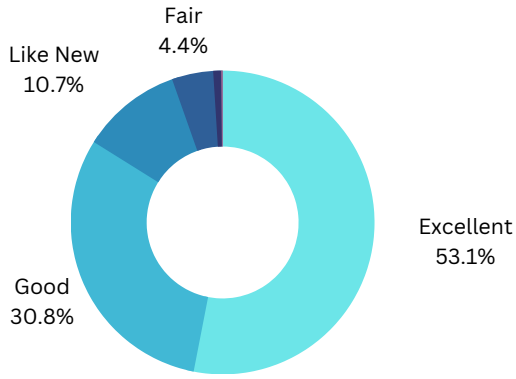


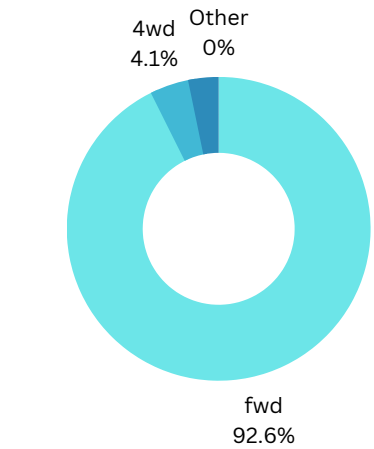
11

Minivan

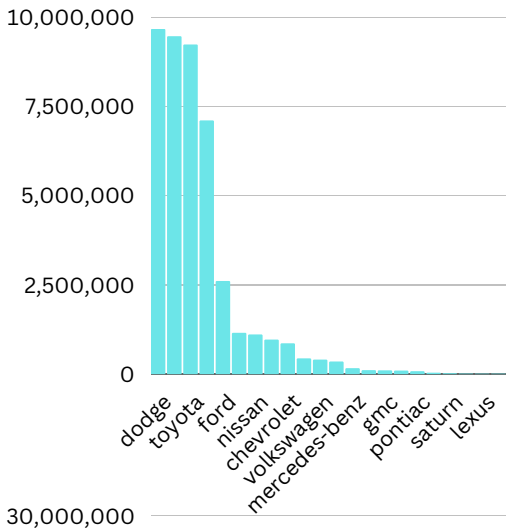
The previous year sales by total quantity.

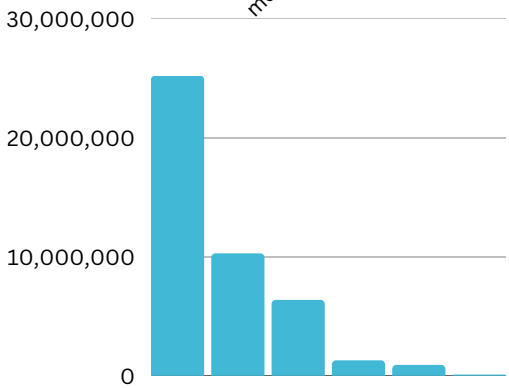


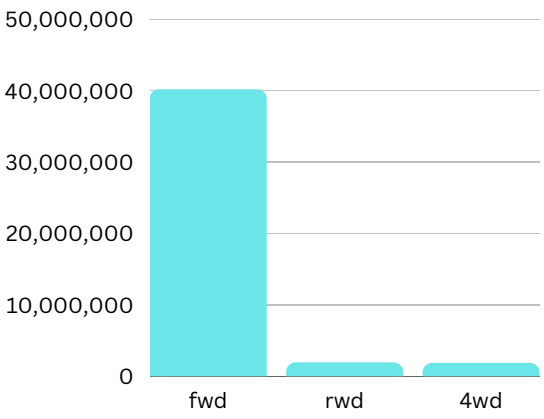




The previous year sales by total $.



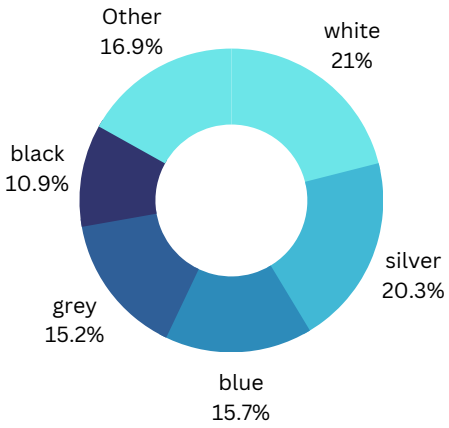


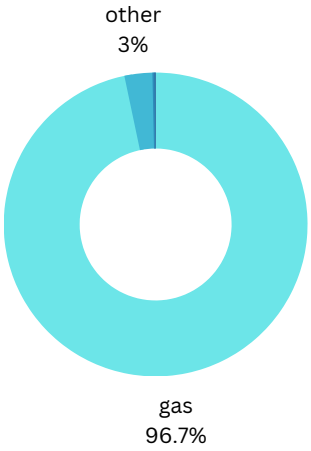


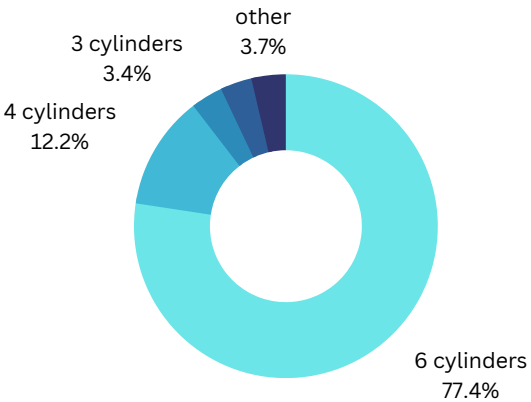
11

Minivan

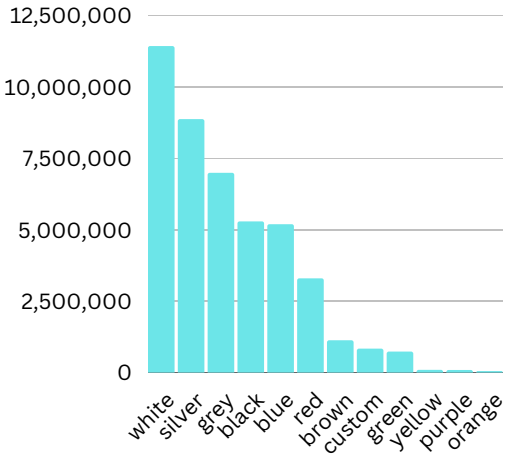
The previous year sales by total quantity.

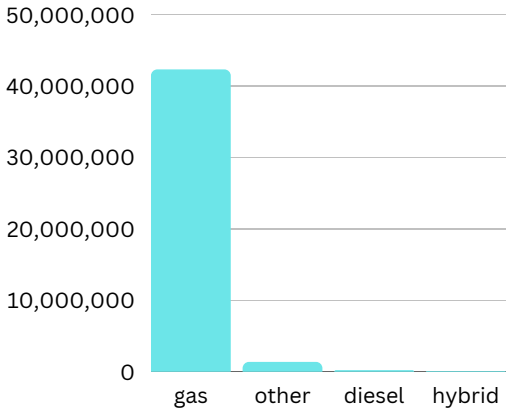


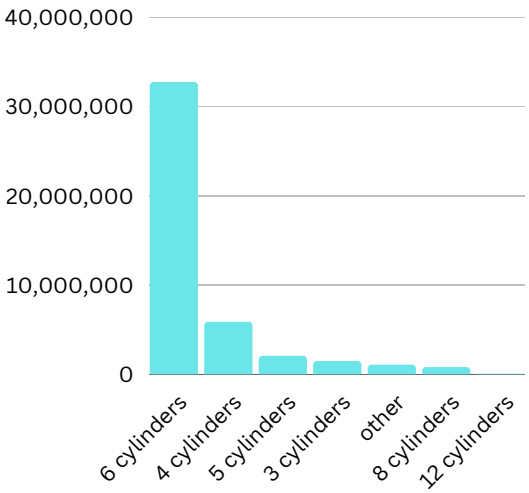




The previous year sales by total $.



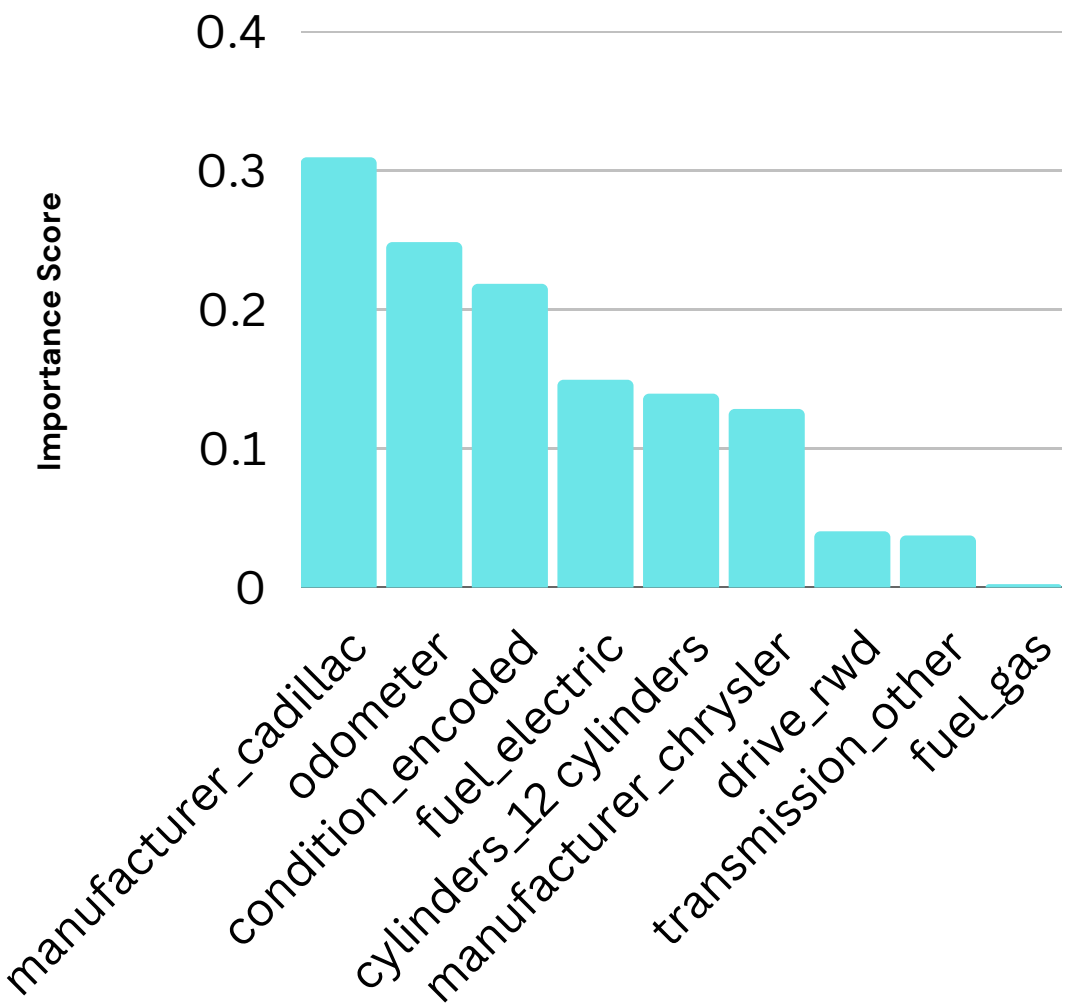




12

Bus

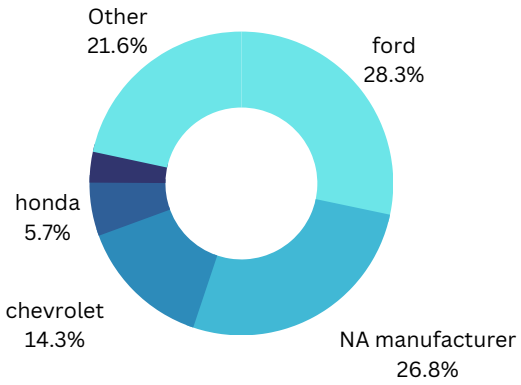
The price of the bus is driven by features listed below on a chart. Most influential features are on the left.

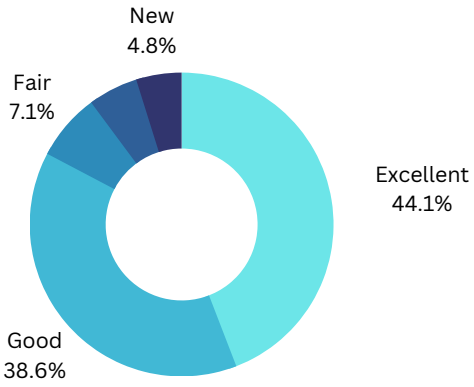


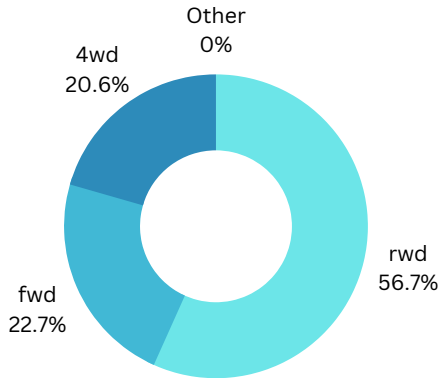
12

Bus

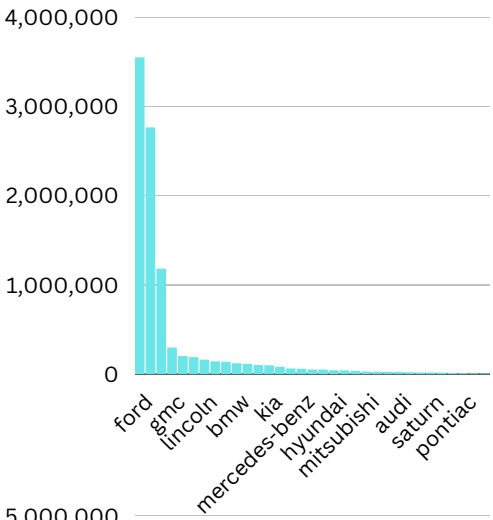
The previous year sales by total quantity.

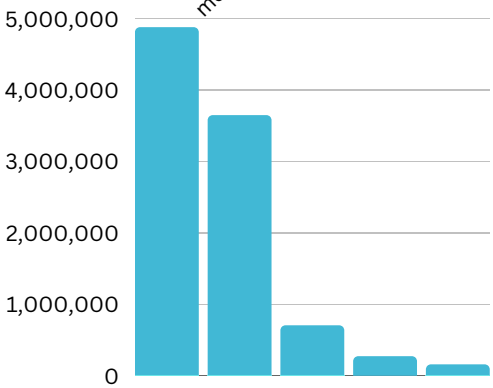


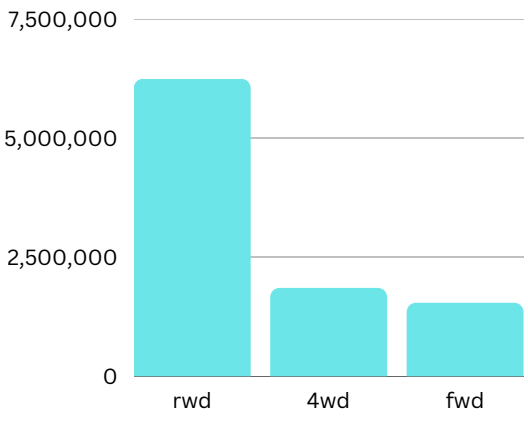




The previous year sales by total $.

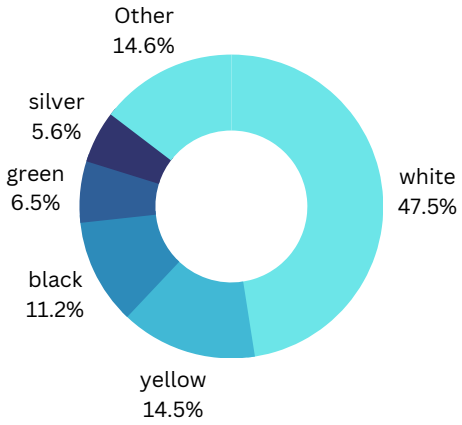


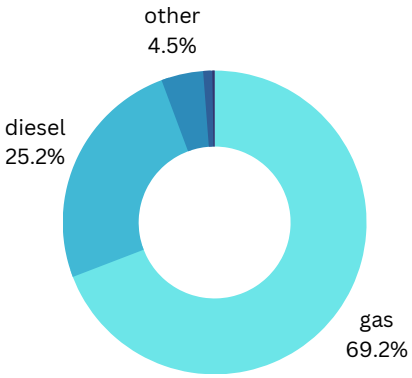


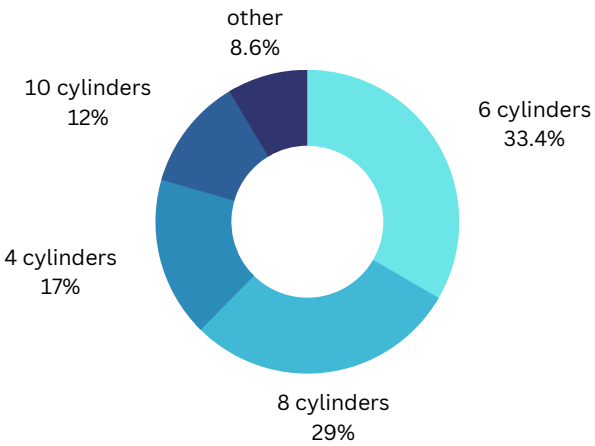


Bus

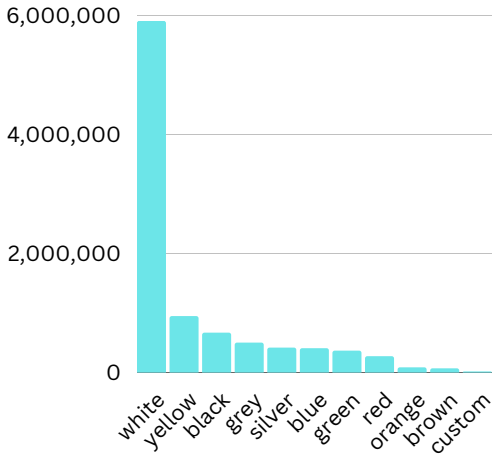
The previous year sales by total quantity.

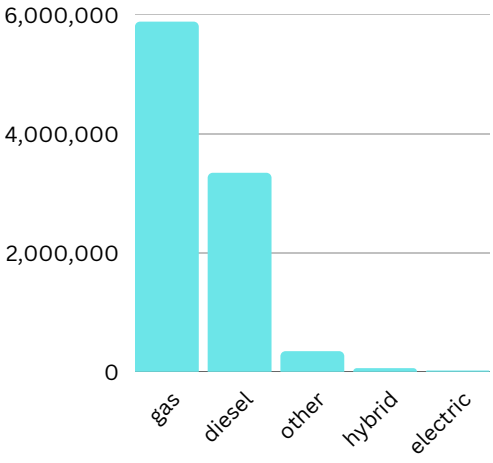


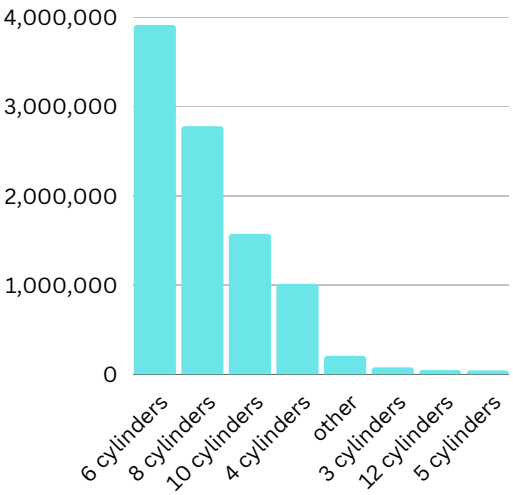




The previous year sales by total $.







13

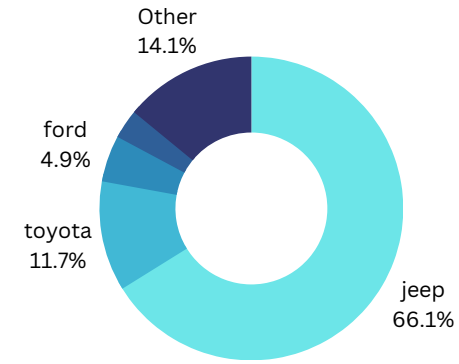
Offroad

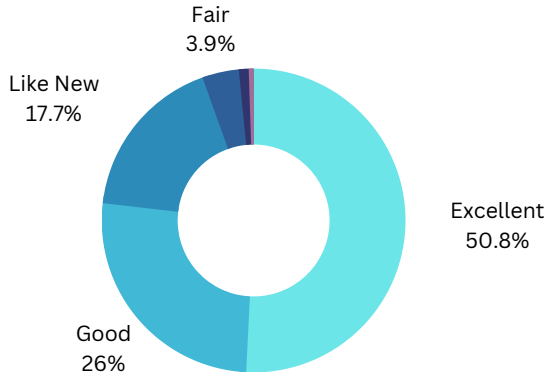
The price of the offroad is driven by 1 feature: the "transmission_other ". This feature has an importance score of 4.159. This suggests that the "transmission_other" feature has a relatively high importance in the model's pricing performance.

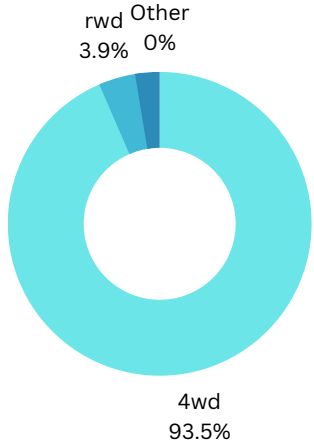
13

Offroad

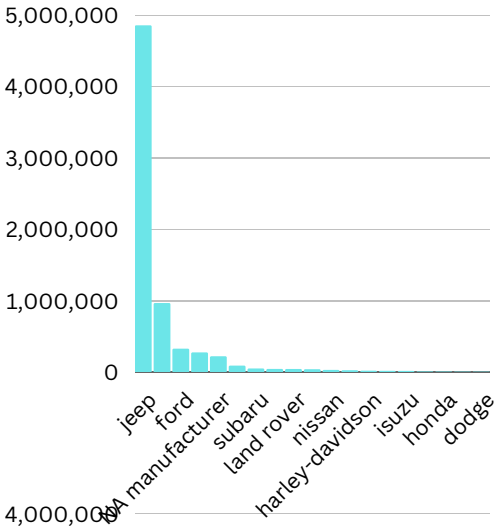
The previous year sales by total quantity.

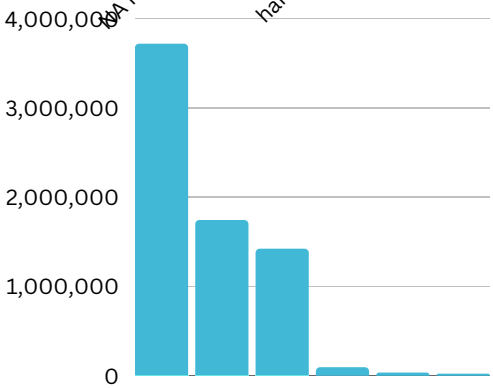


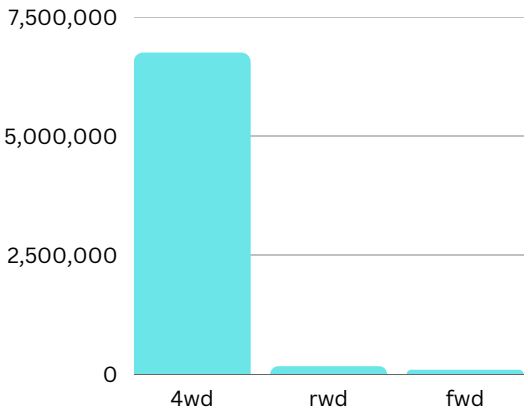




The previous year sales by total $.

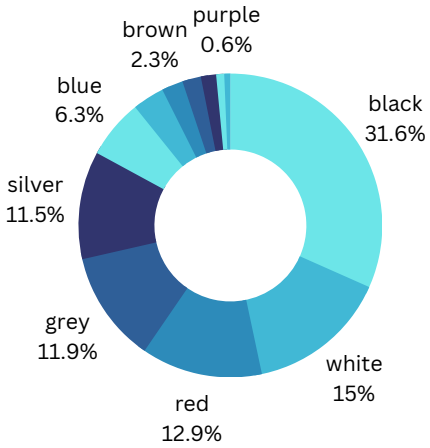


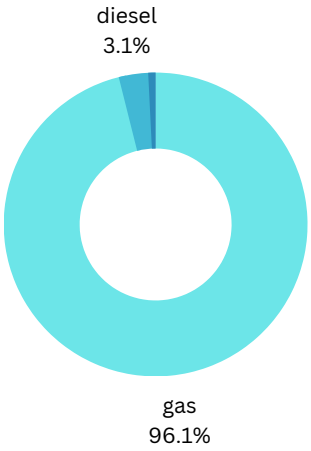


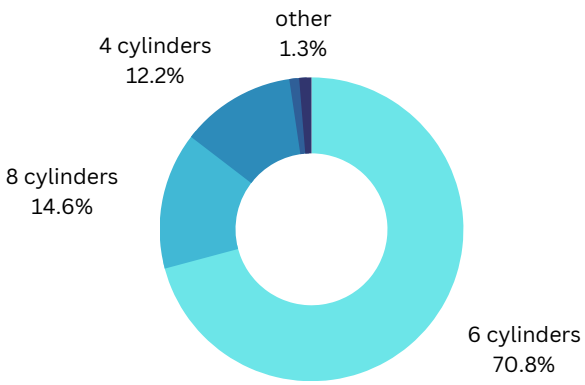


Offroad

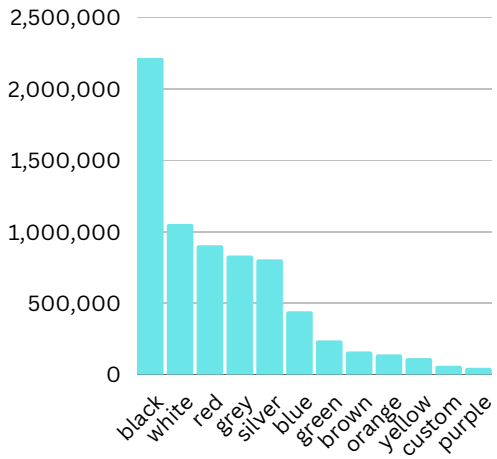
The previous year sales by total quantity.

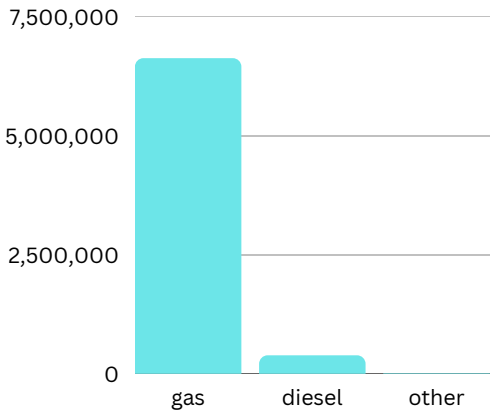


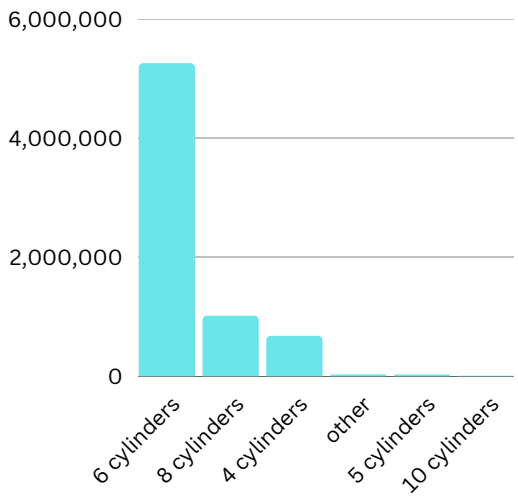




The previous year sales by total $.



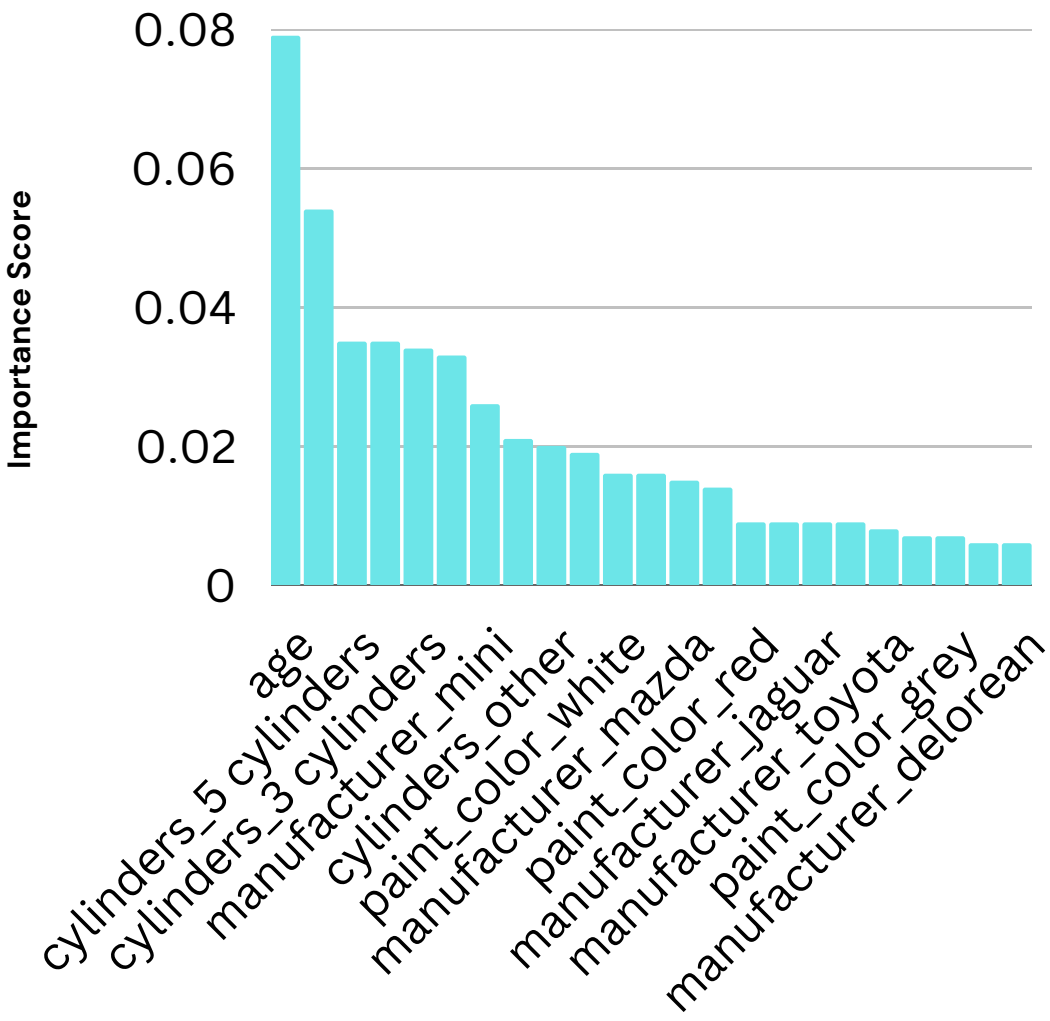




14

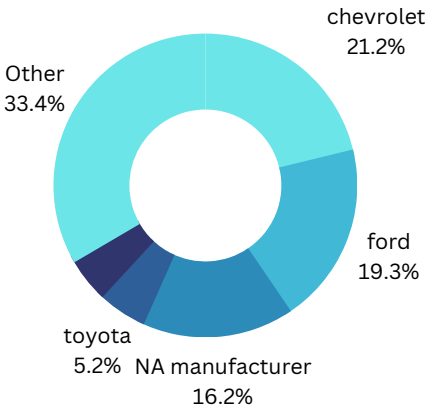
Antiques

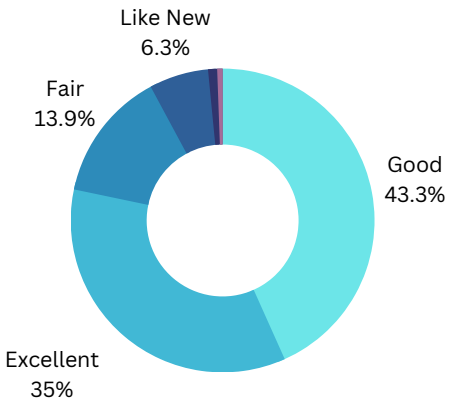
The price of the antiques is driven by features listed below on a chart. Most influential features are on the left.

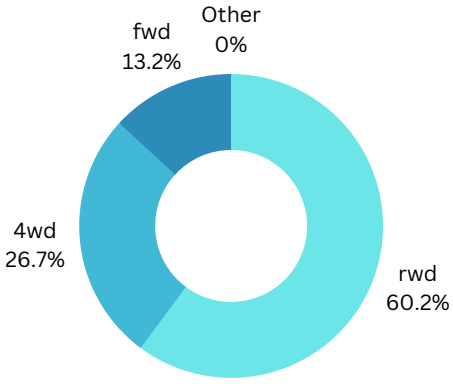


Antiques

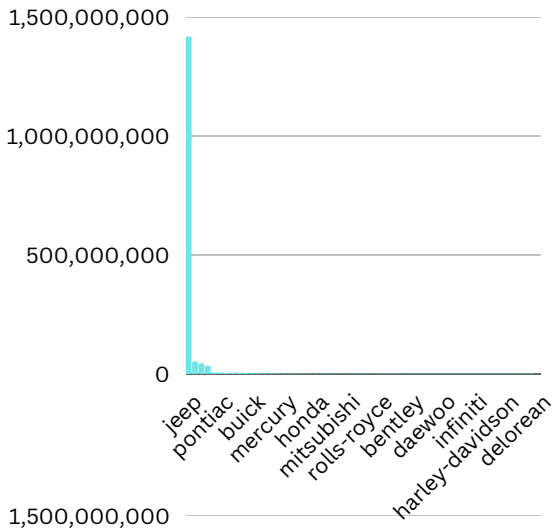
The previous year sales by total quantity.

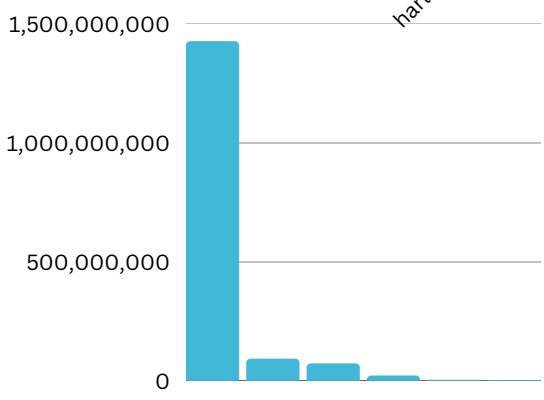


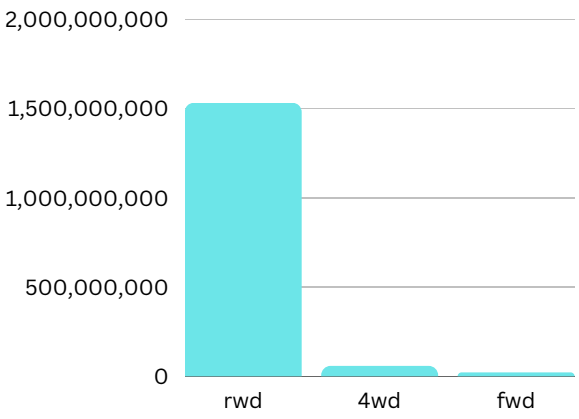




The previous year sales by total $.

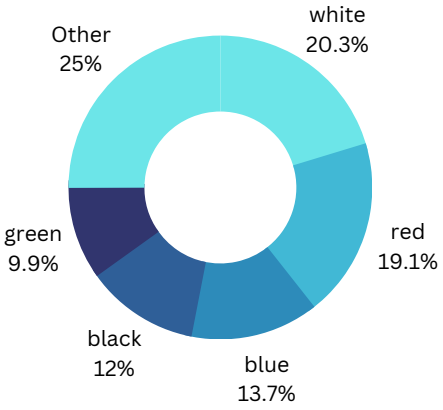


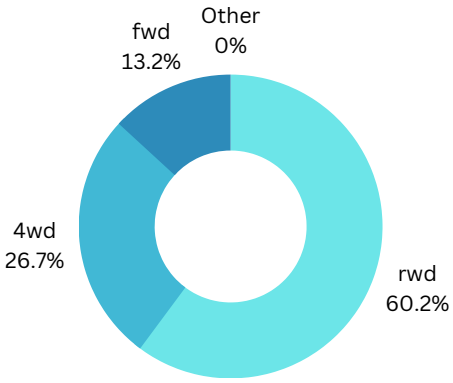


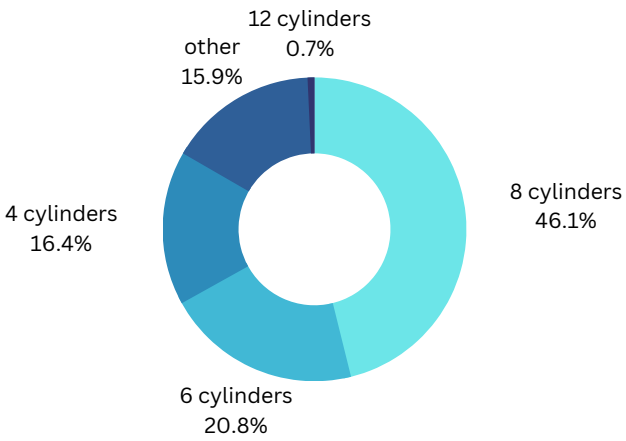
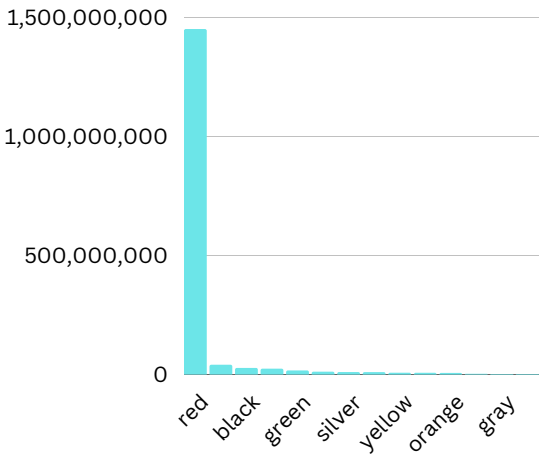
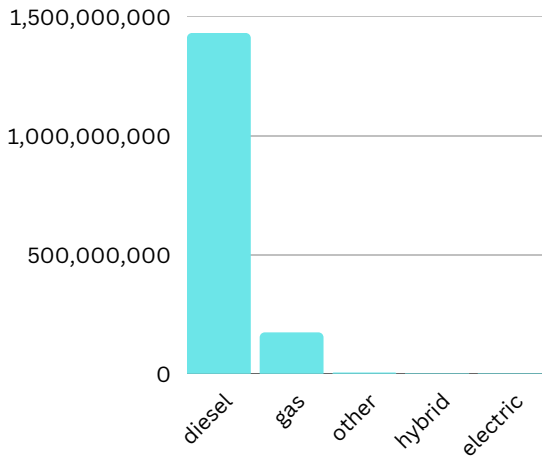
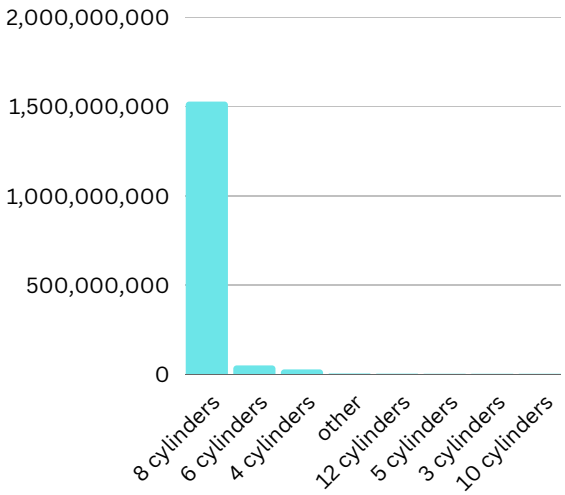


Antiques

The previous year sales by total quantity.







The previous year sales by total $.