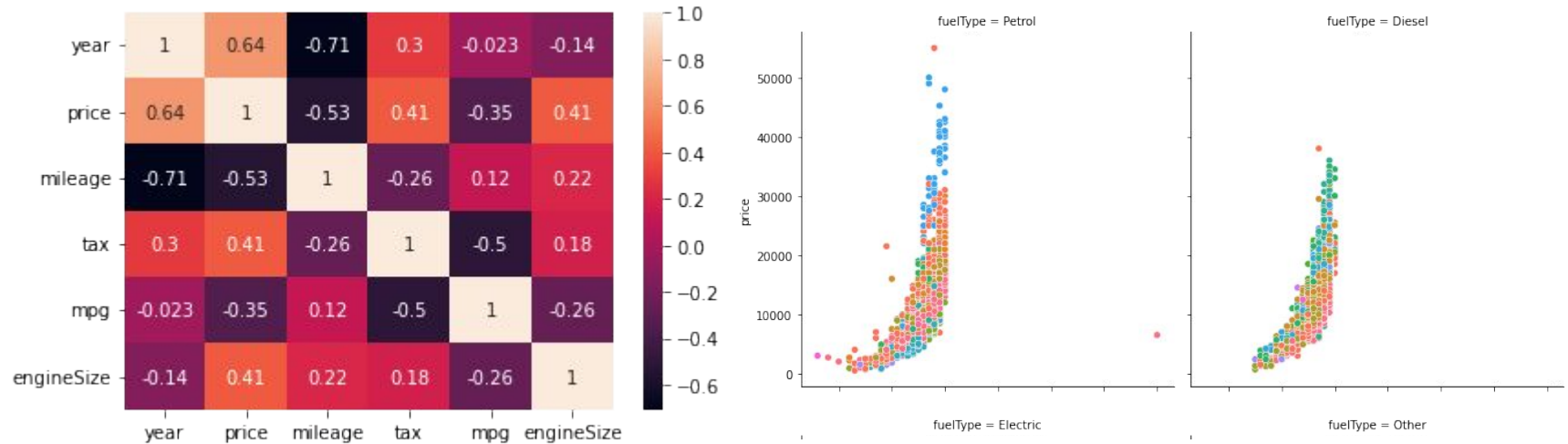




Trends Among the Sale of Old and New Ford Vehicles

Aryan Mistry, Bowen Zheng, Daniel Neufeldt, Harry, Takao Oba

Data Overview, Cleaning, and Exploration:



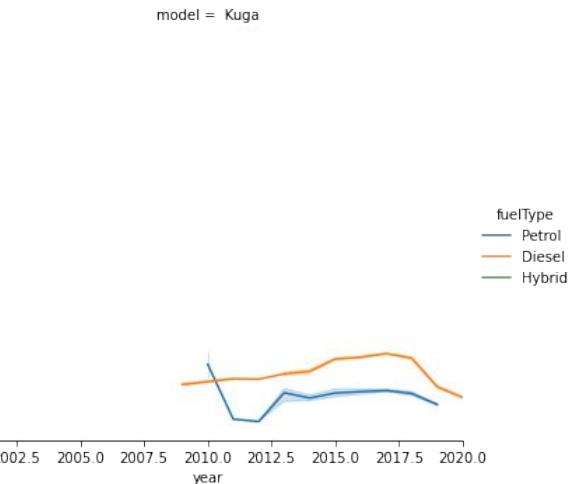
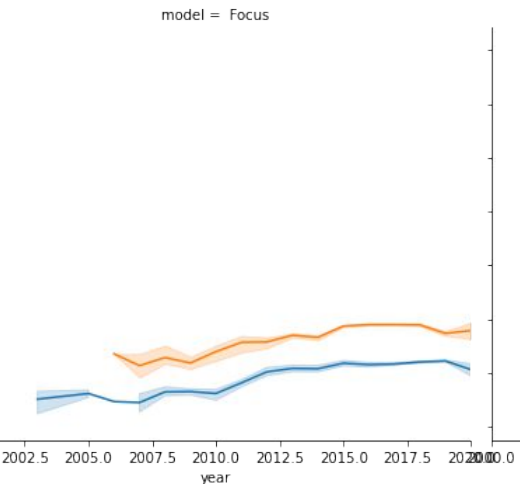
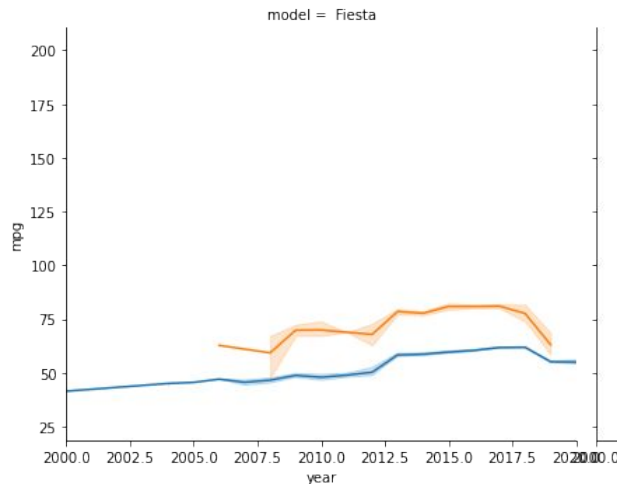
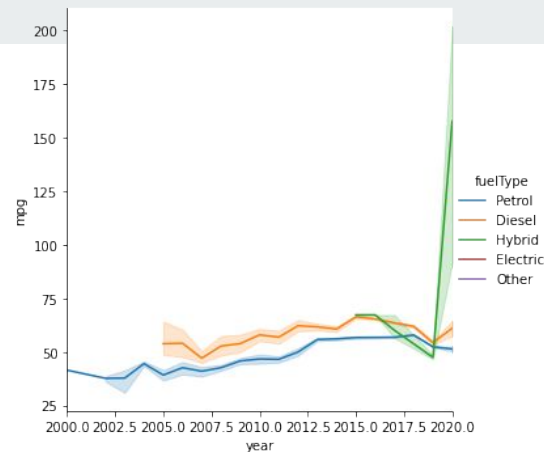


Bowen - Question

Are cars of the Ford brand increasing in mpg over the years?



Bowen - Analysis



Bowen - Conclusion

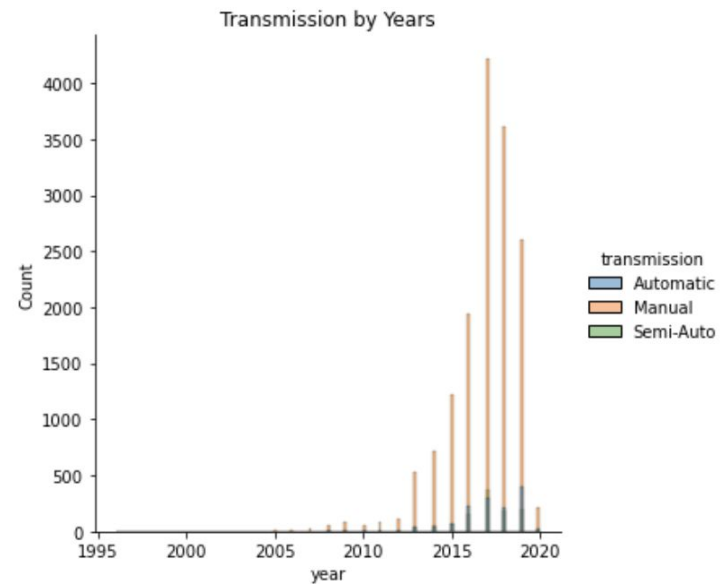
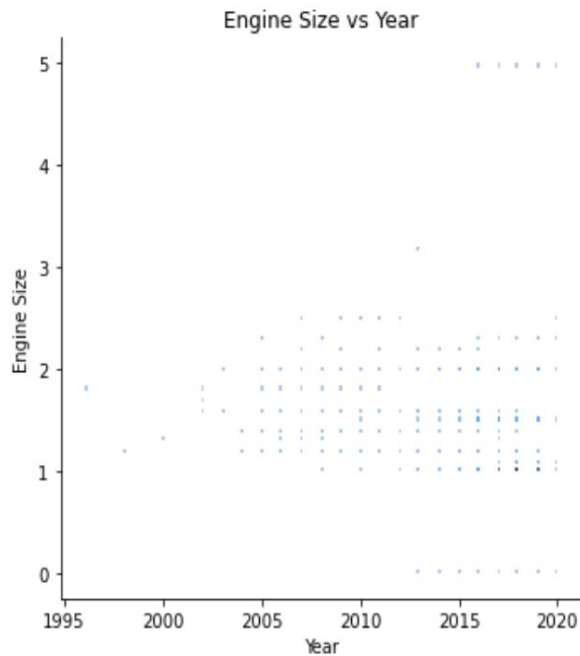




Takao - Question

How does Ford Motors adapt to contemporary technology in terms of engine size and transmission?

Takao - Analysis





Takao - Conclusions

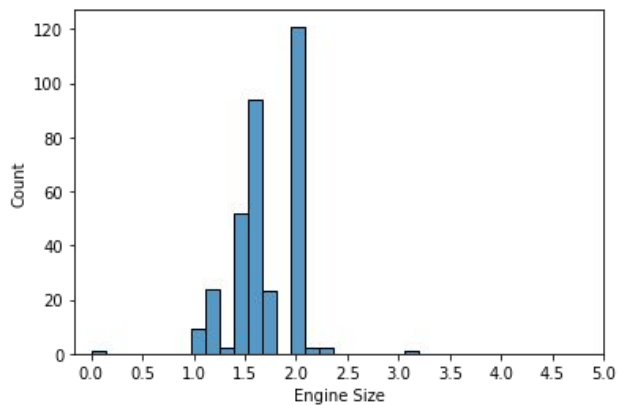
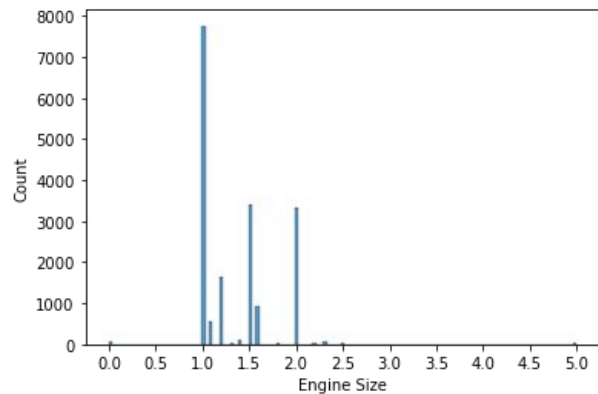
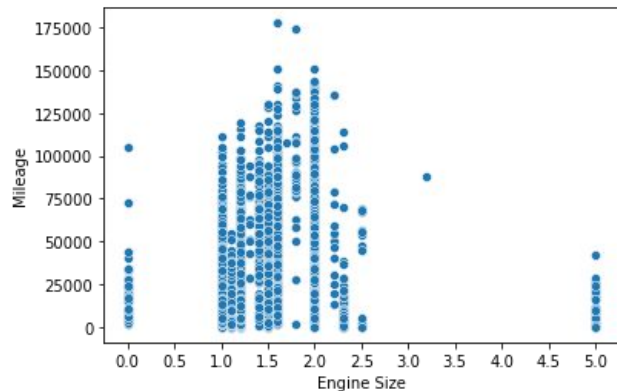
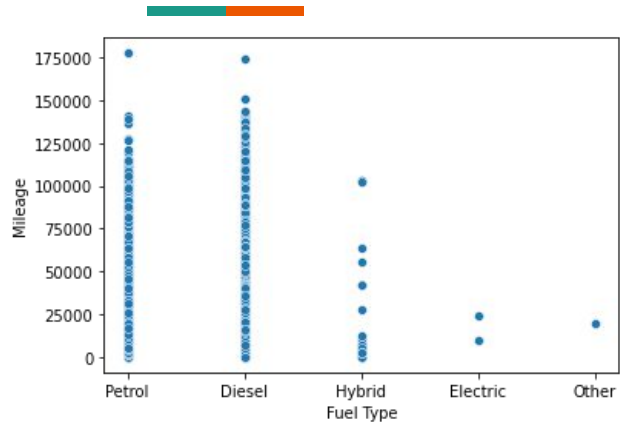
- Ford vehicles tend to utilize and maintain smaller engines compared to other manufacturing companies.
- Ford motors maintains the old-fashioned manual transmission cars.



Aryan - Question

What attributes do the highest-mileage cars have in common? How can we use this to predict the longevity of future cars?

Aryan - Analysis





Aryan - Conclusions

- Diesel engines seem to be able to withstand more miles than other engine types.
- Engines between 1.6 to 2.0 liters in size last more miles than engines of other sizes.

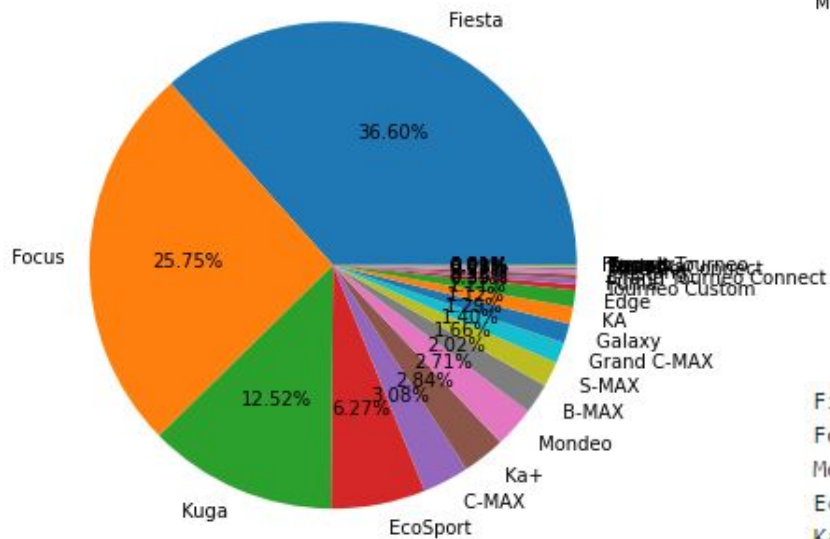


Harry - Question

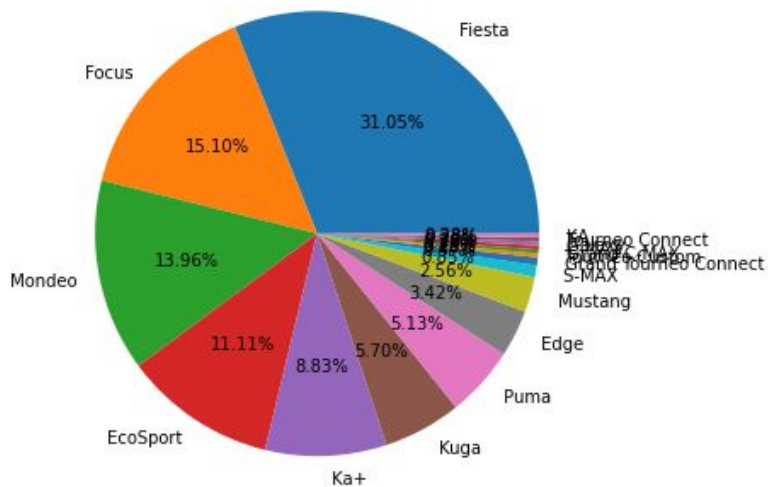
Among the new and used cars that were sold, what attributes did they have in common? Are there any specific attributes that were more common in new or used cars?

Model

New Car Models



Used Car Models

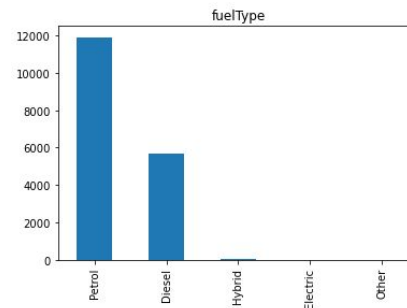
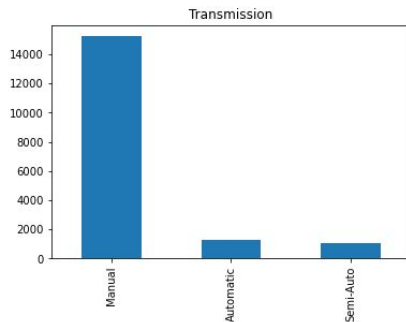
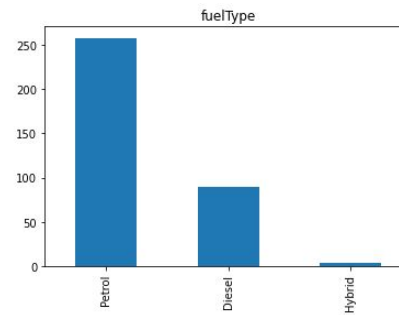
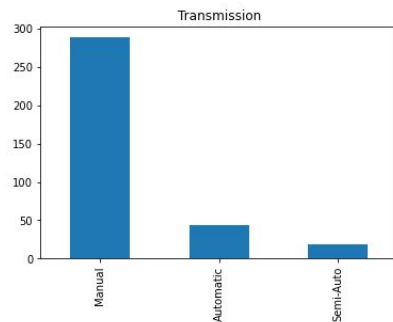


Fiesta	109
Focus	53
Mondeo	49
EcoSport	39
Ka+	31

Fiesta	6447
Focus	4535
Kuga	2205
EcoSport	1104
C-MAX	542

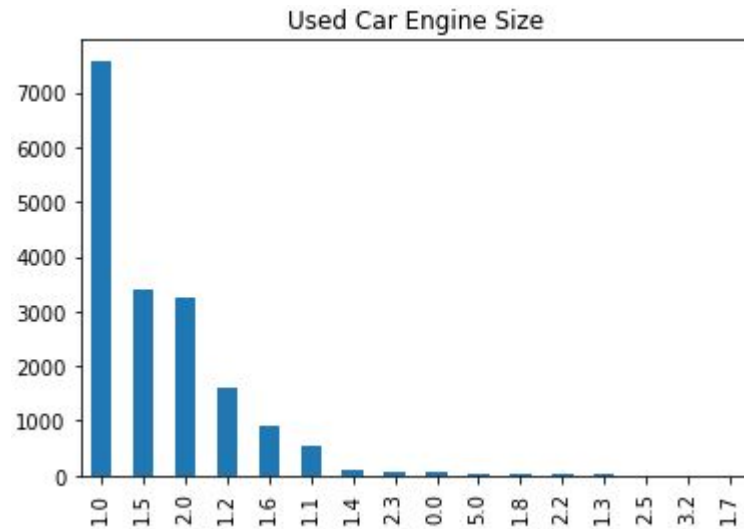
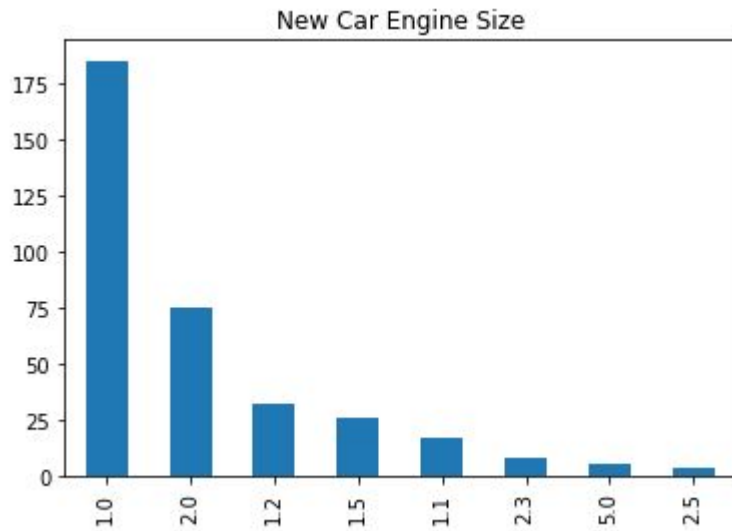


Transmissions and Fuel Type

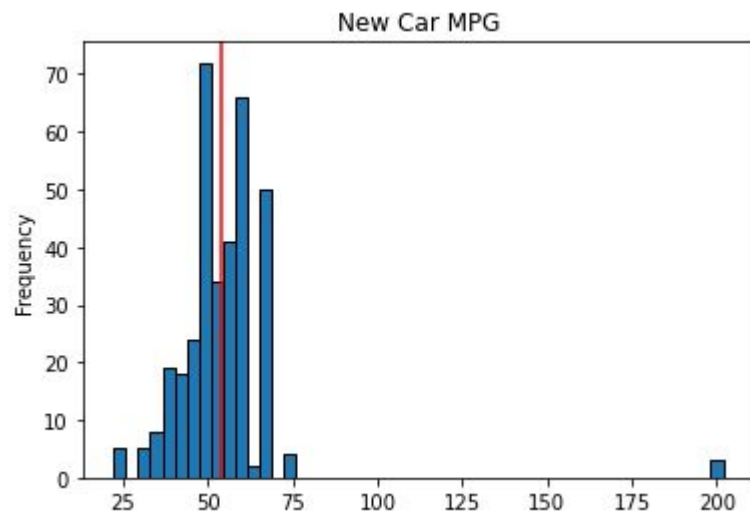




Engine Size

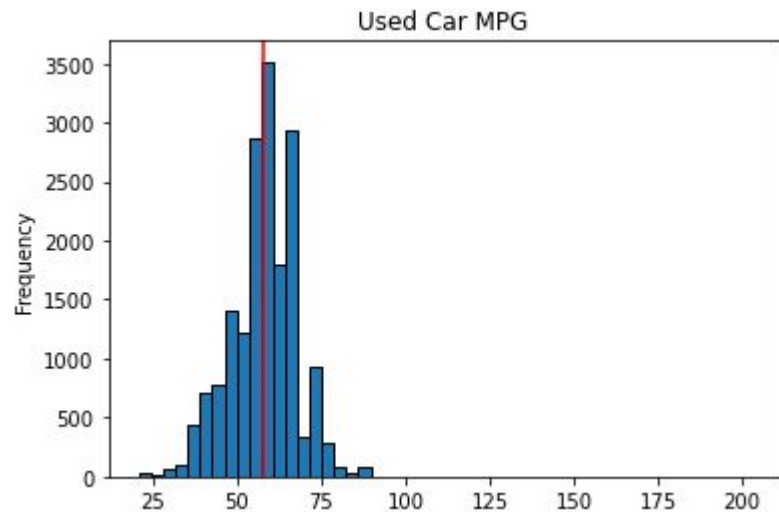


MPG (Miles per Gallon)



```
new_cars["mpg"].mean()
```

54.05242165242166



```
used_cars["mpg"].mean()
```

57.984648574997564




Harry - Conclusion

Overall, the vehicles sold on both new and used markets are similar. The most popular vehicle in both used and new market is a car with manual transmission that ran on petrol, with an engine size of 1, with mpg around 56 mpg.

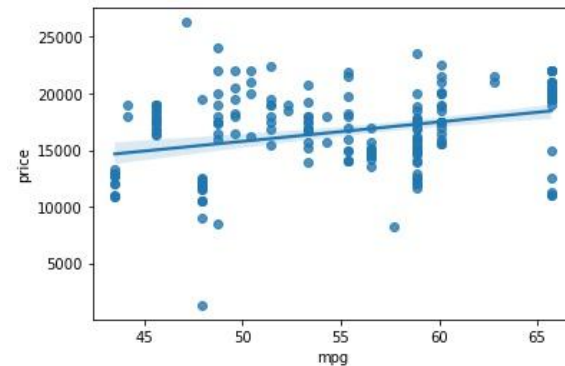
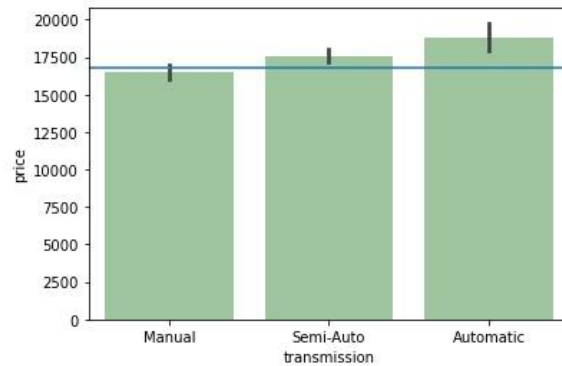
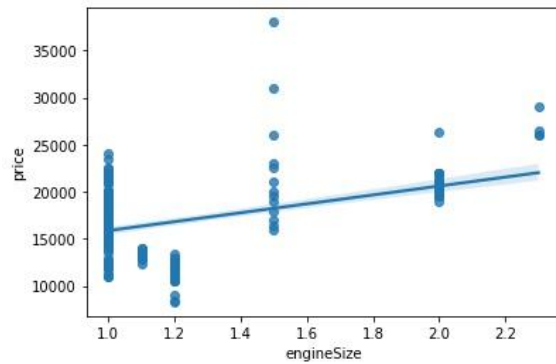


Daniel - Question

Are Ford cars increasing in price over time? And if so, why?

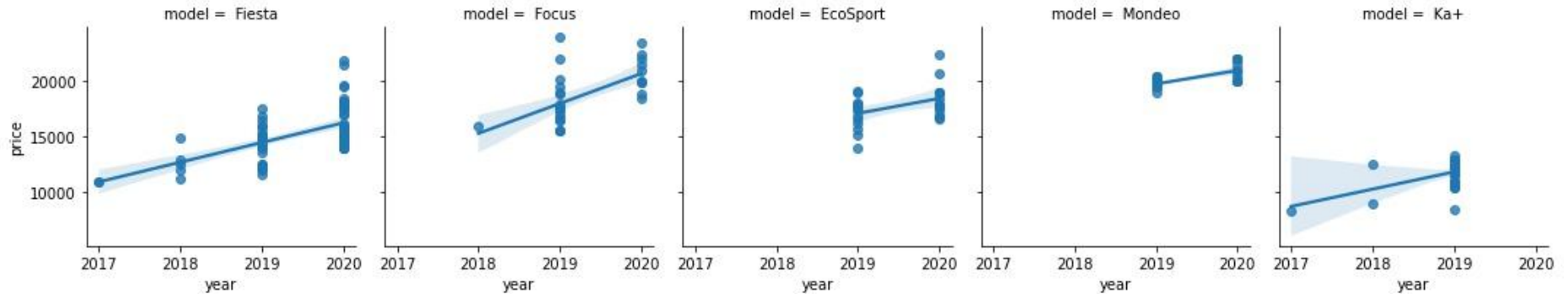


Daniel - Analysis





Daniel - Analysis Continued





Daniel - Conclusion

- The price of Ford cars seem to be increasing as the years progress.
- This result was discovered even after eliminating models with attributes that significantly change price.
- We can look into external/internal factors that can answer this trend.