



DS 501

VEHICLES SALES PROJECT

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CONTENT

01

ABOUT US

02

MOTIVATION

03

CONJECTURES

04

MODELS

05

RESULTS

ABOUT US



We are a medium-sized car dealership aiming to enhance our pricing estimates to entice customers while maximizing profitability.



We utilize the Manheim market report alongside car features including manufacturers and conditions to forecast car prices.



MOTIVATION

College Student

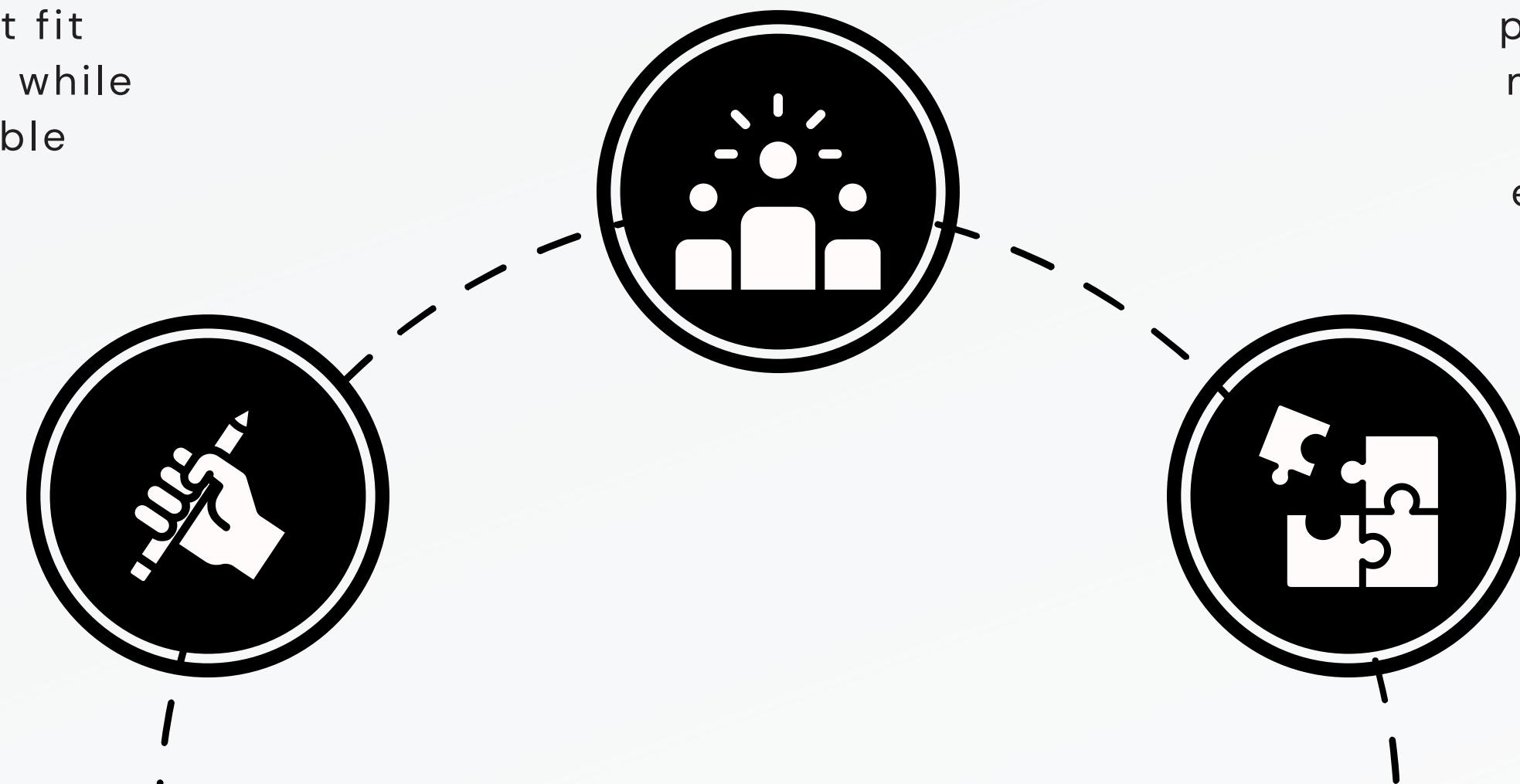
We recognize that car prices fluctuate over time. With our financial limitations, our goal is to find cars that fit within our budget while offering desirable features.

Car Dealership

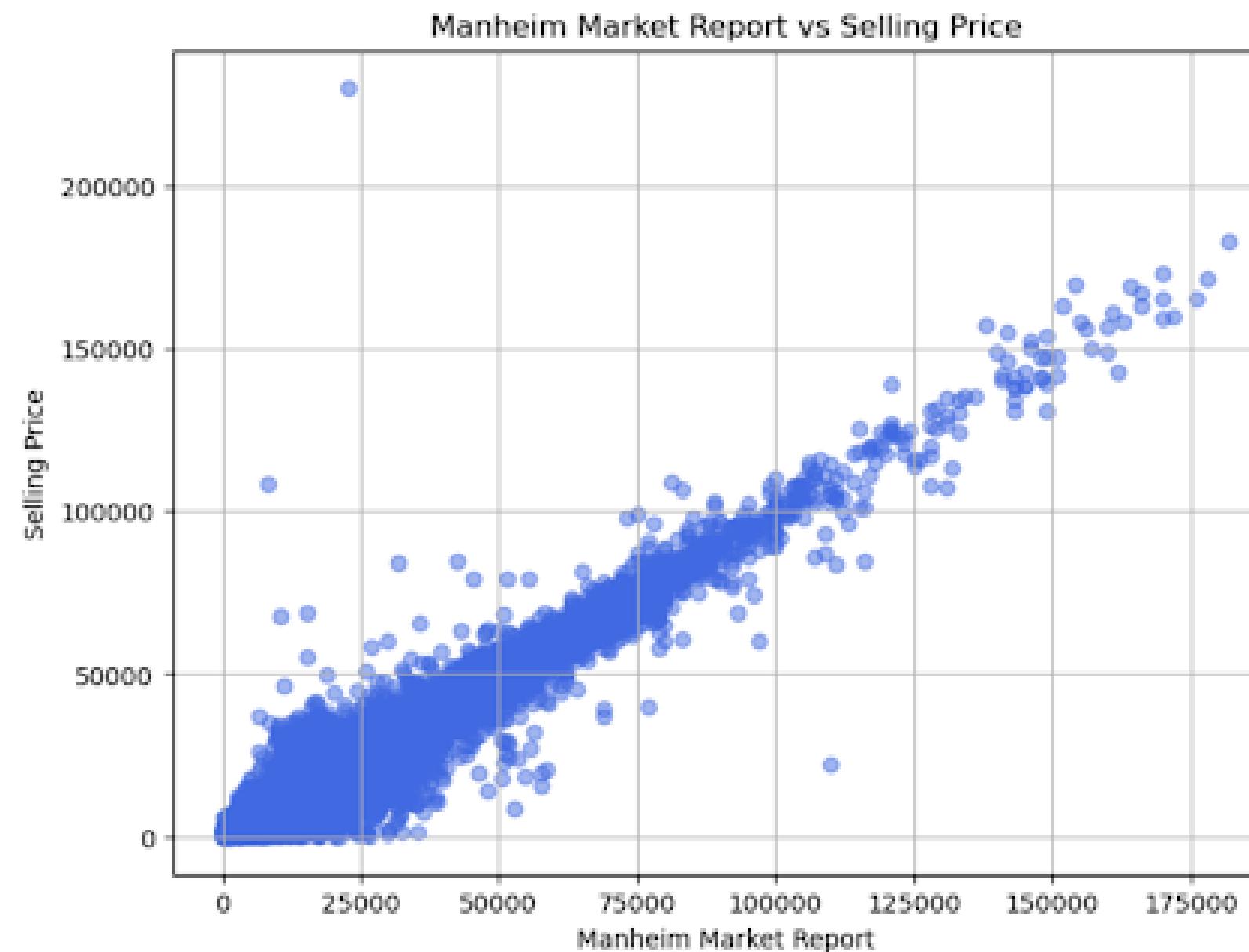
Positioned between manufacturers and customers, we delve into past data to uncover trends in car prices over time.

Car Dealership

We aim to forecast prices for newly manufactured cars. Moreover, adjusting pricing strategies to maximize profit and gain a competitive edge in the market.

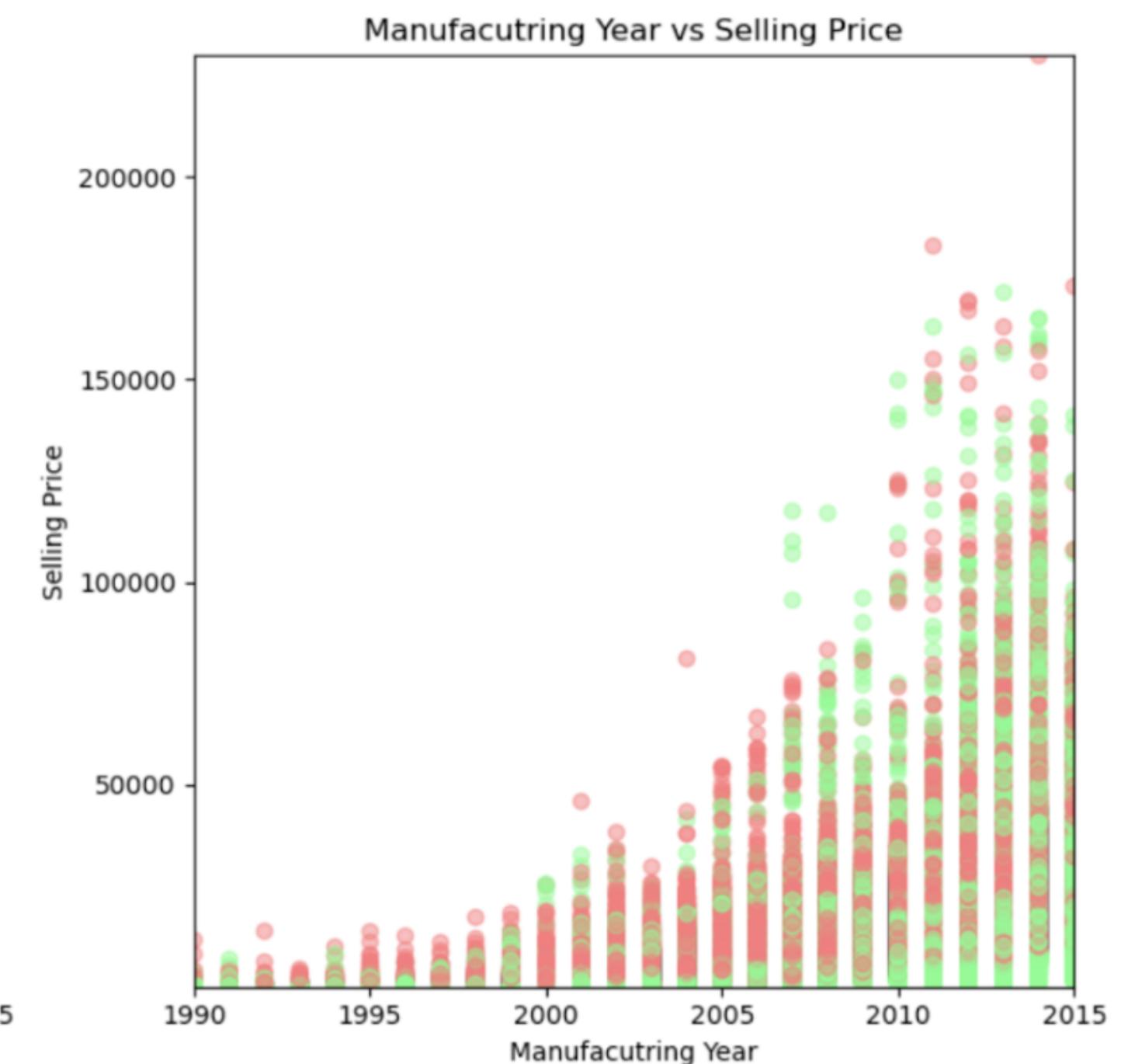
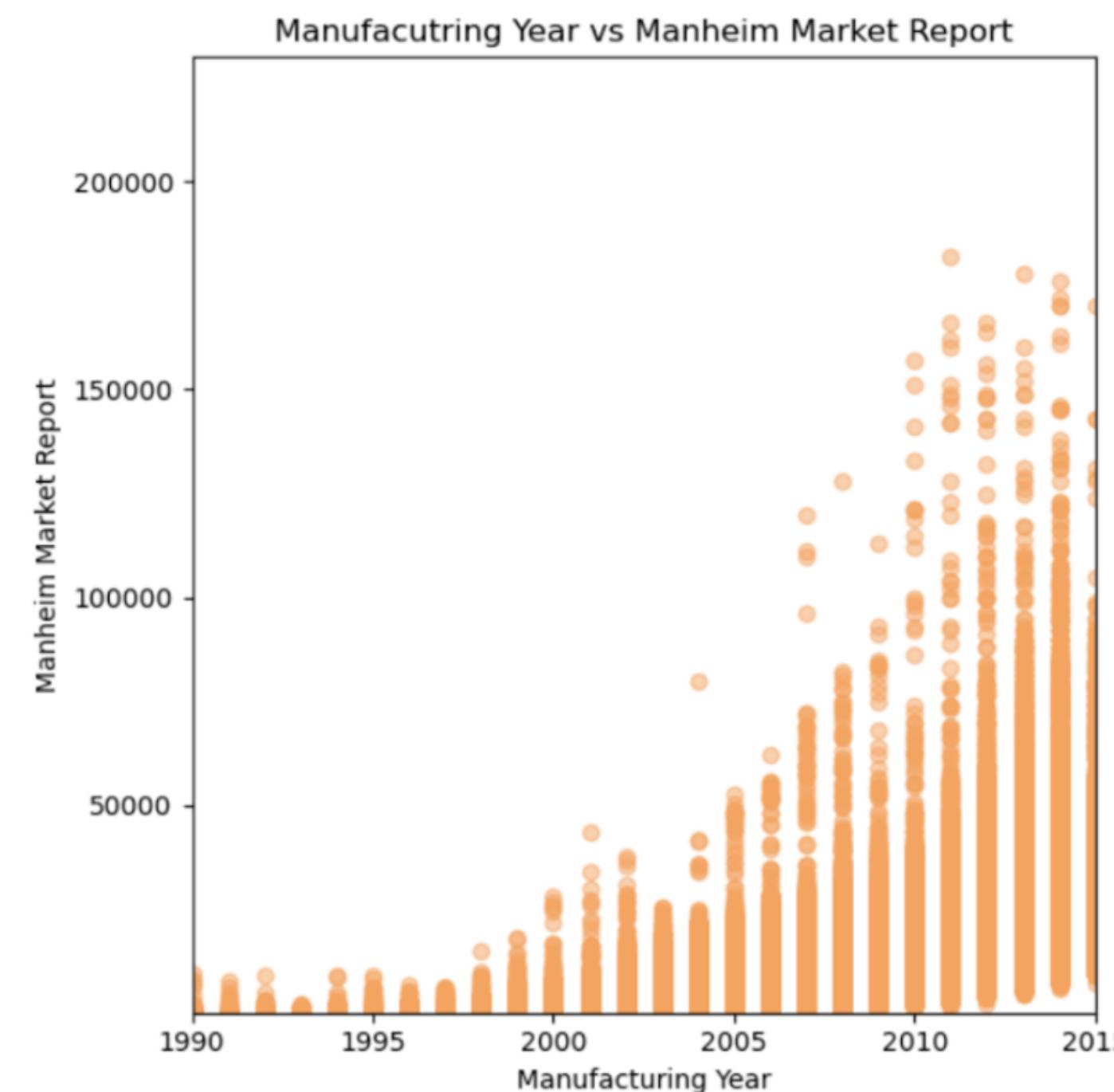


CONJECTURE 1: NUMERICAL FACTORS

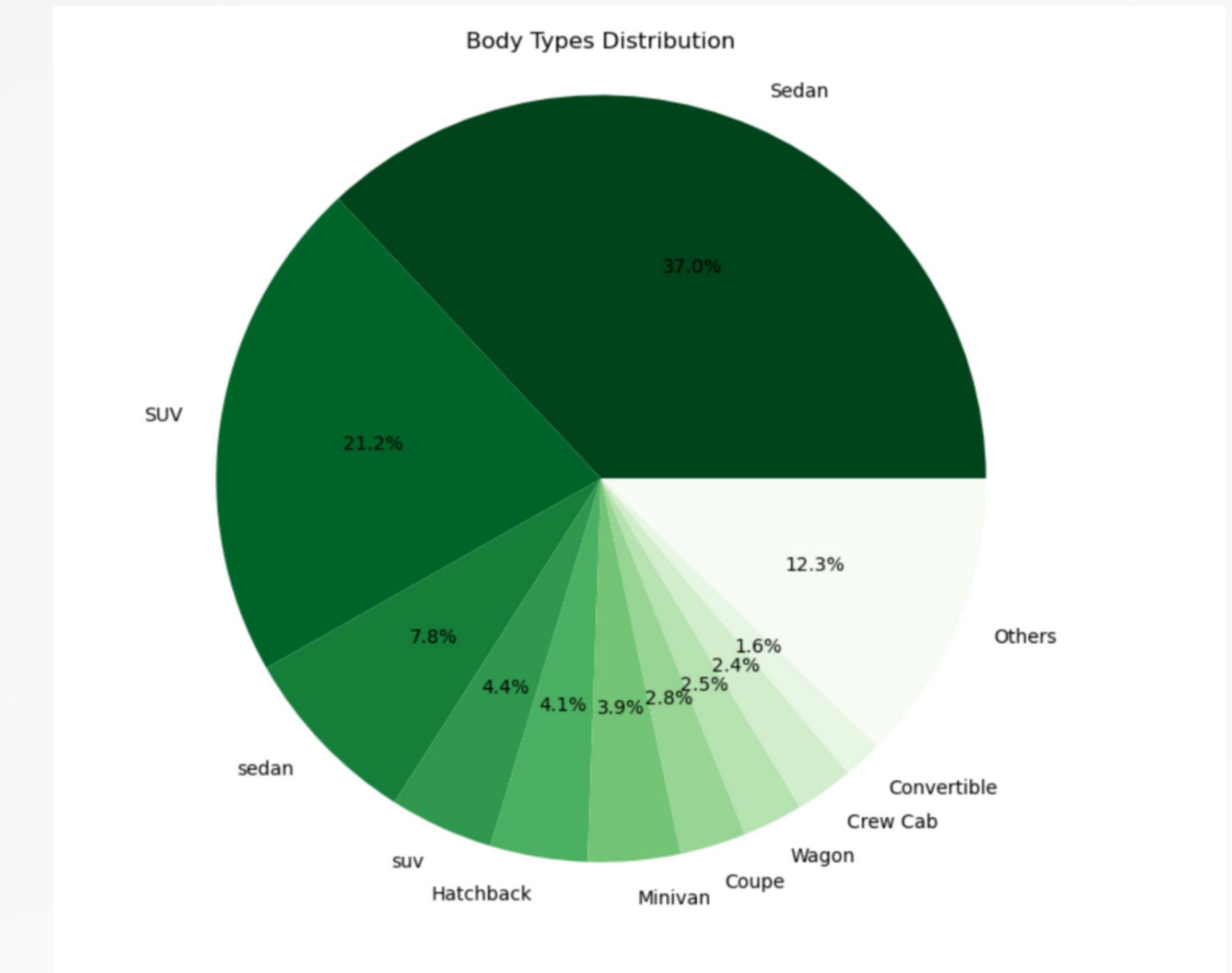
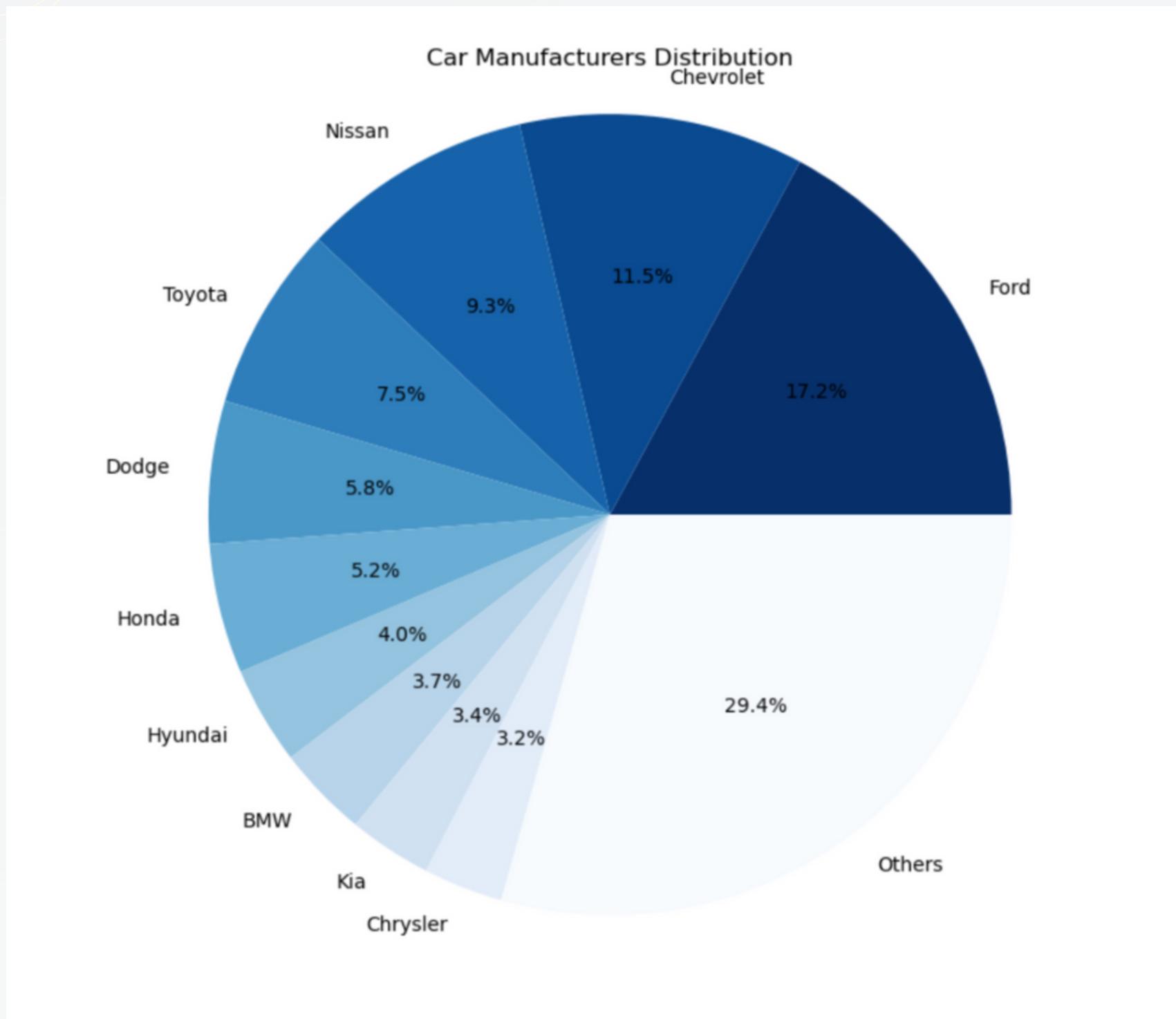


Manheim Market Report vs Selling Price

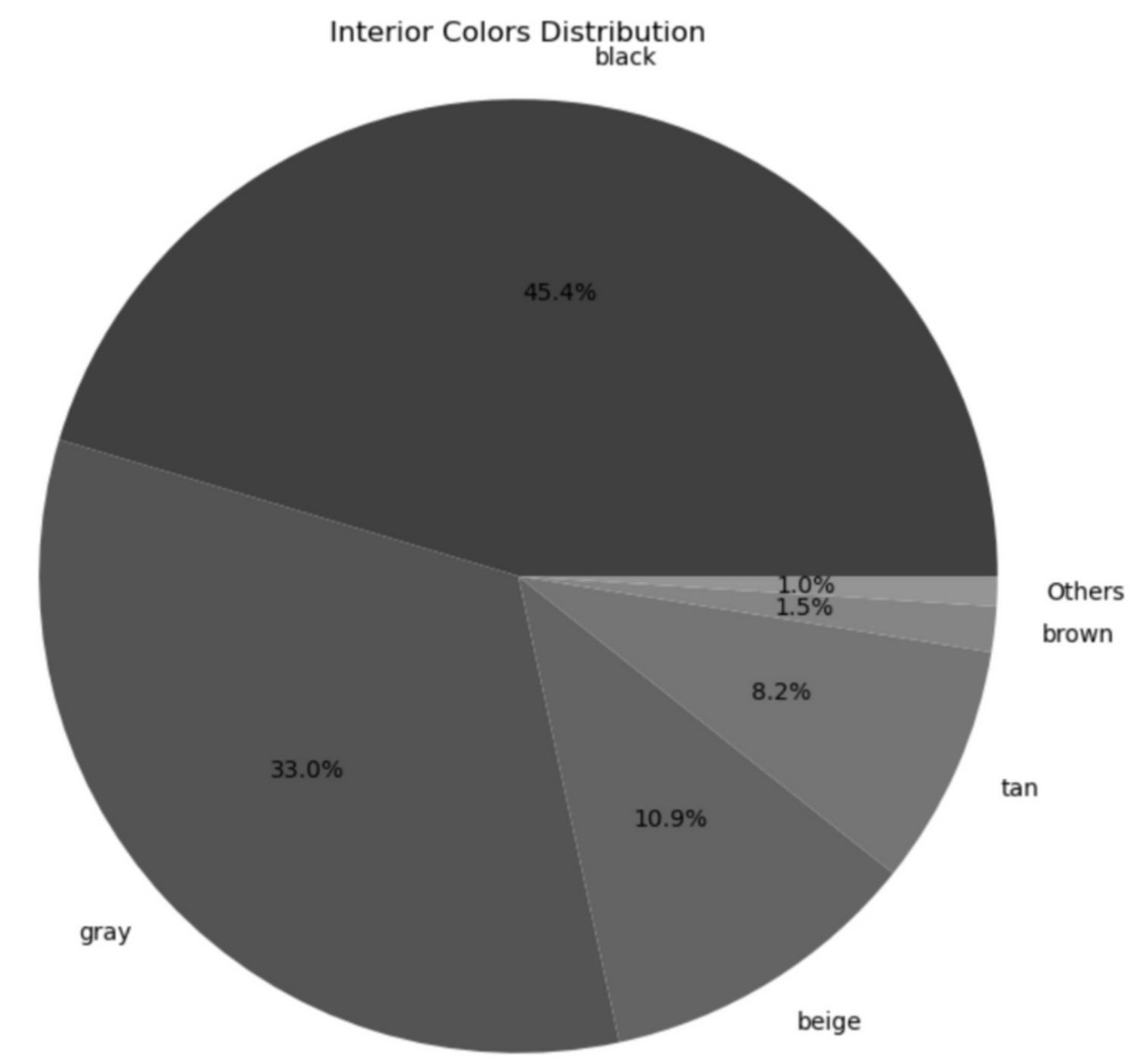
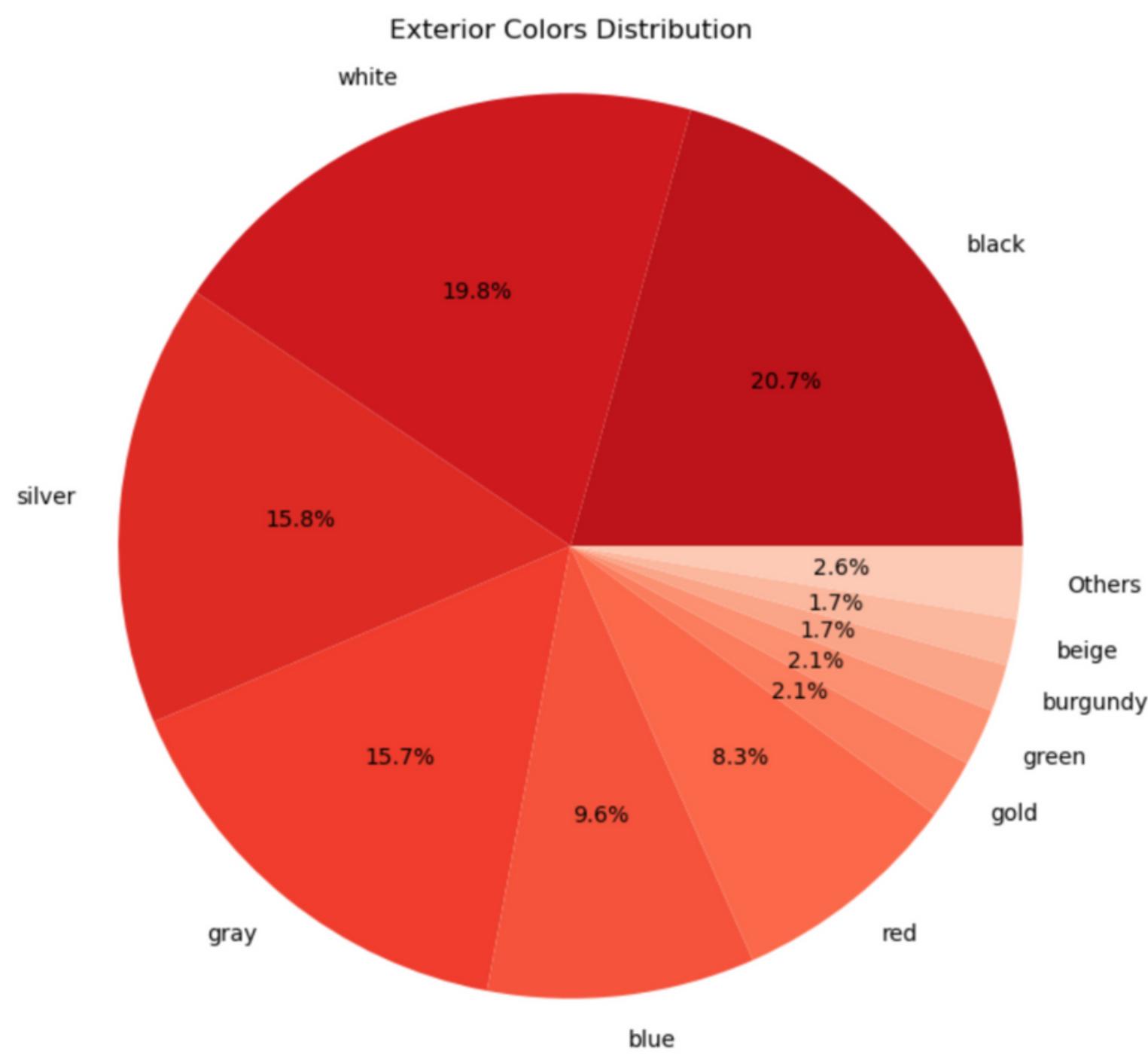
CONJECTURE 1



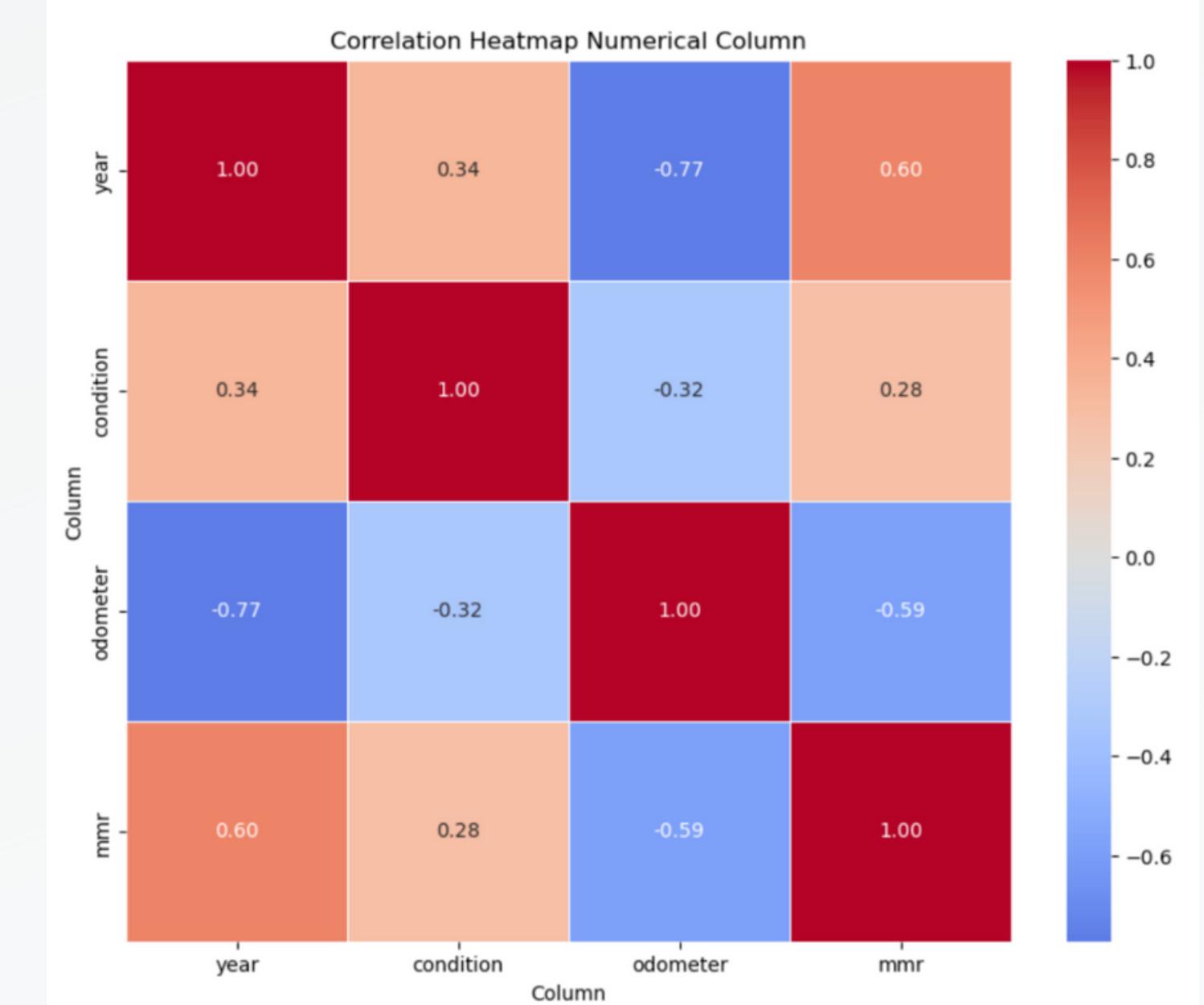
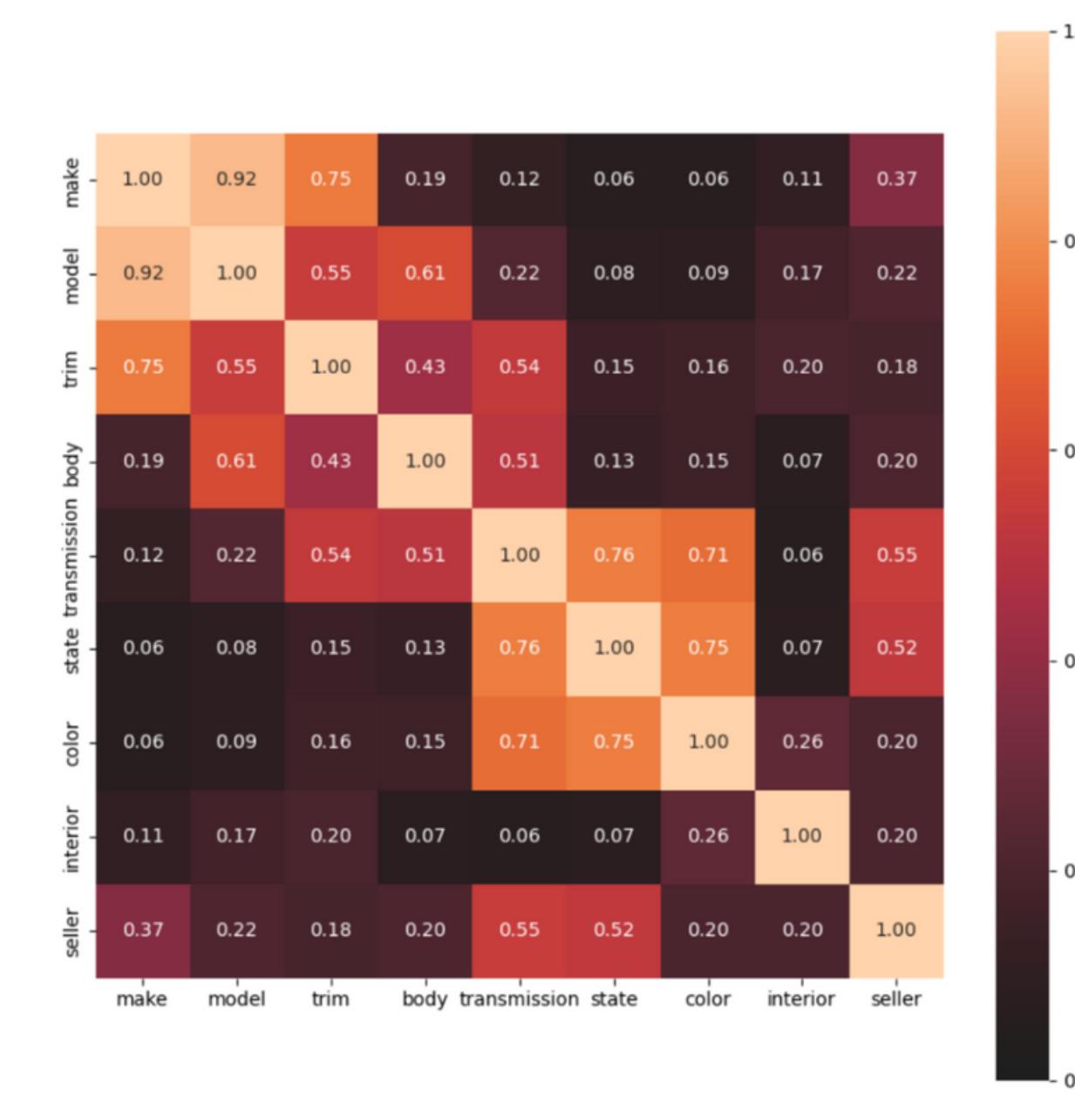
CONJECTURE 2: CATEGORIAL FACTORS



CONJECTURES 2

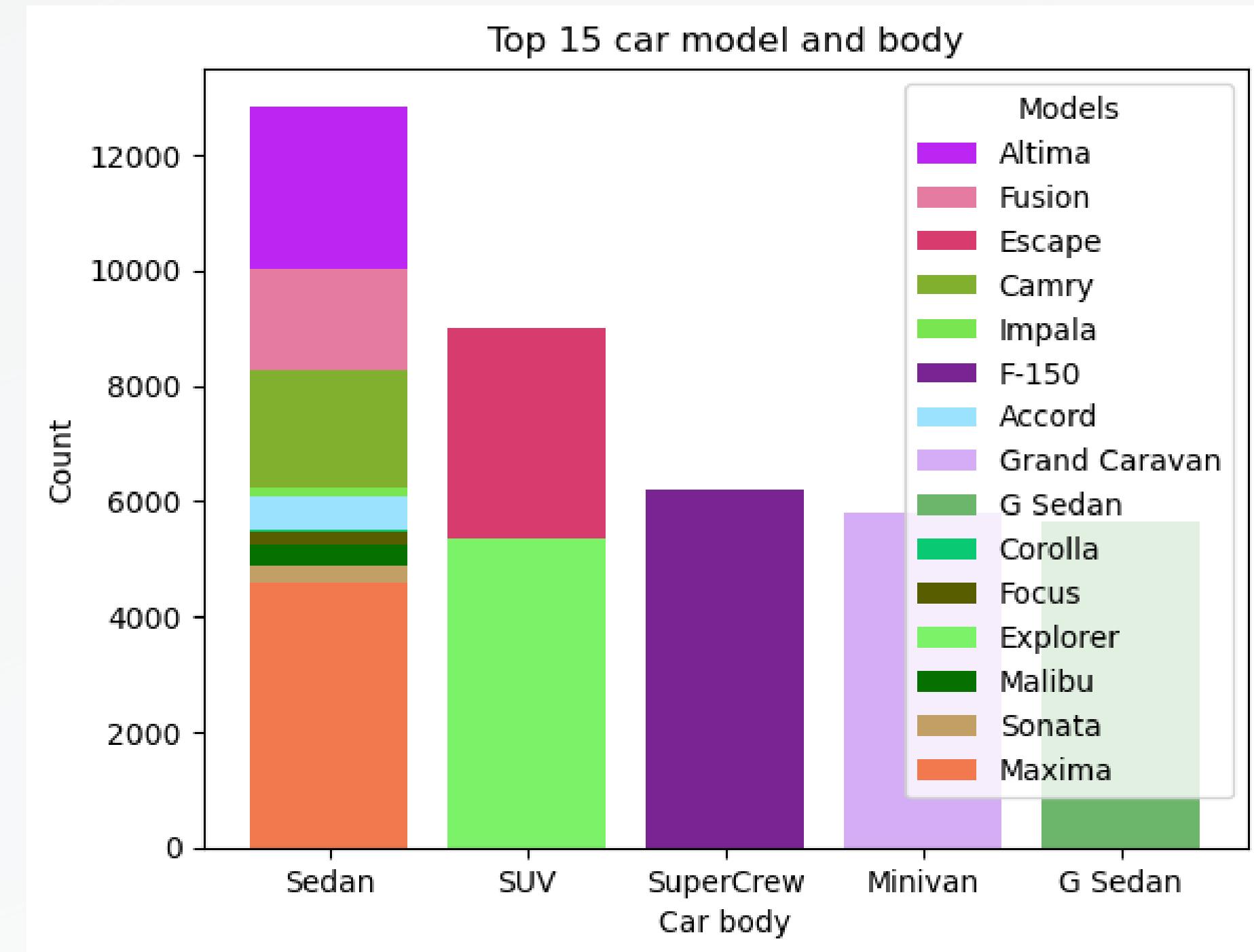
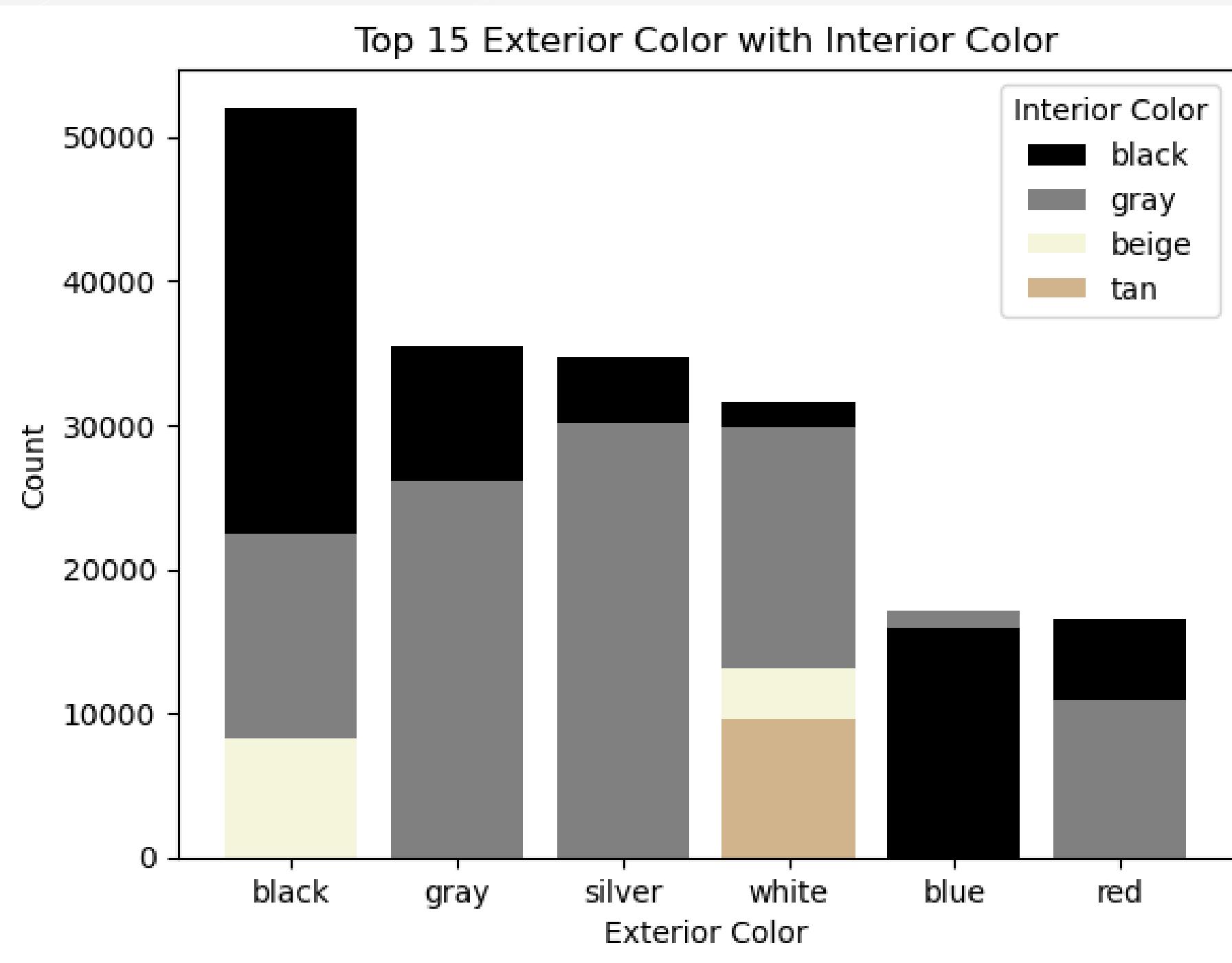


CONJECTURES 3: ALL FACTORS



Categorial vs Numerical Correlation

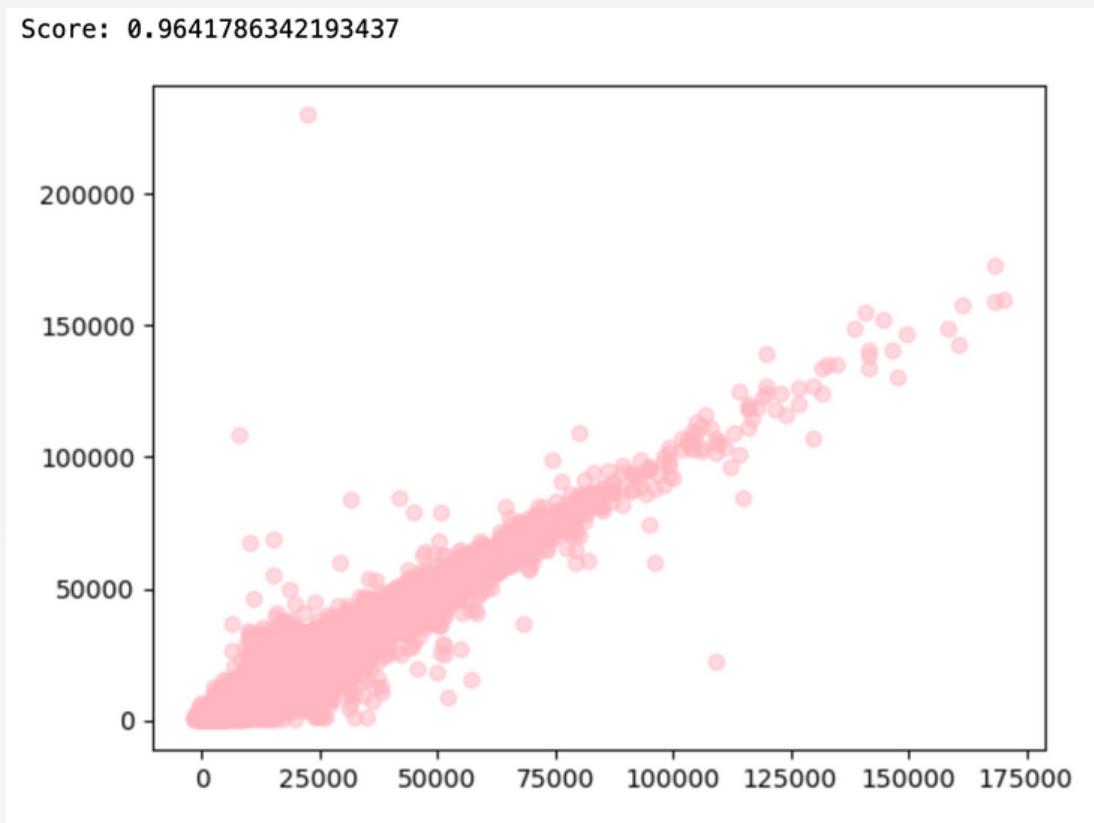
CONJECTURE 4



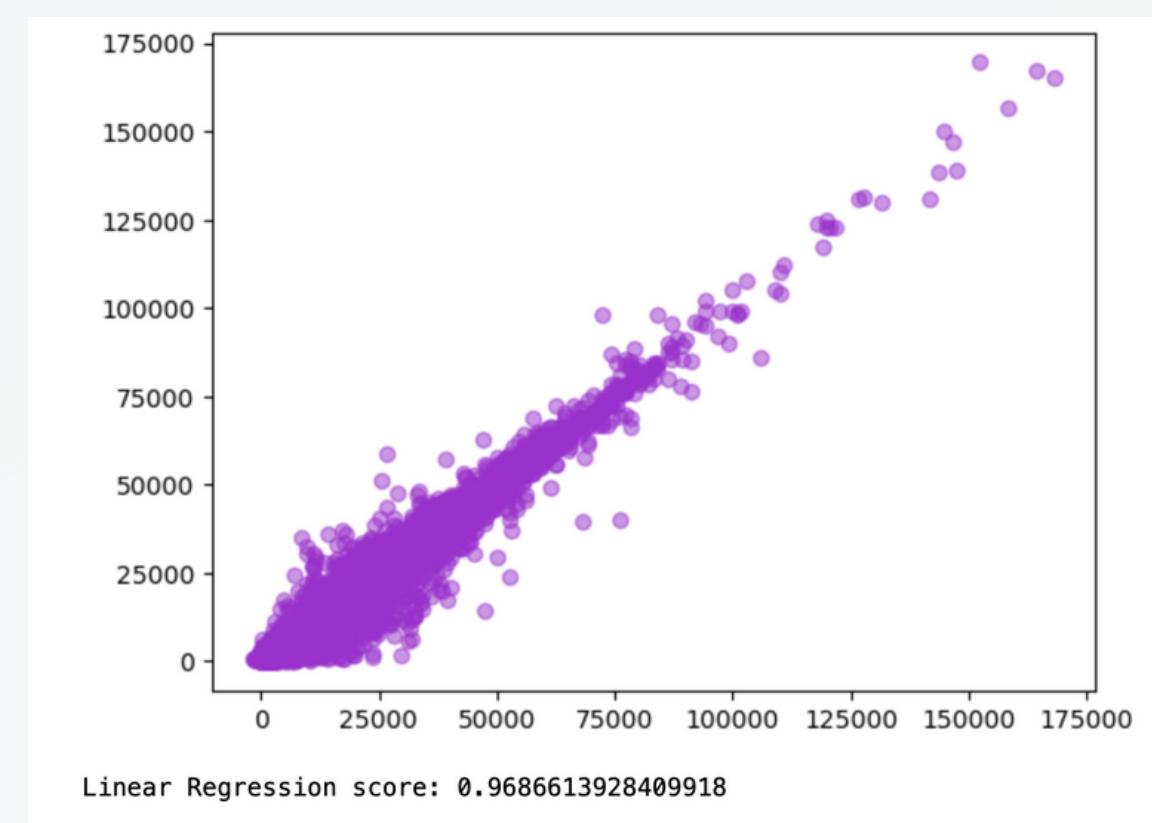
MODELS

Conjecture 1: All Numerical Factors Influence the
Selling Price

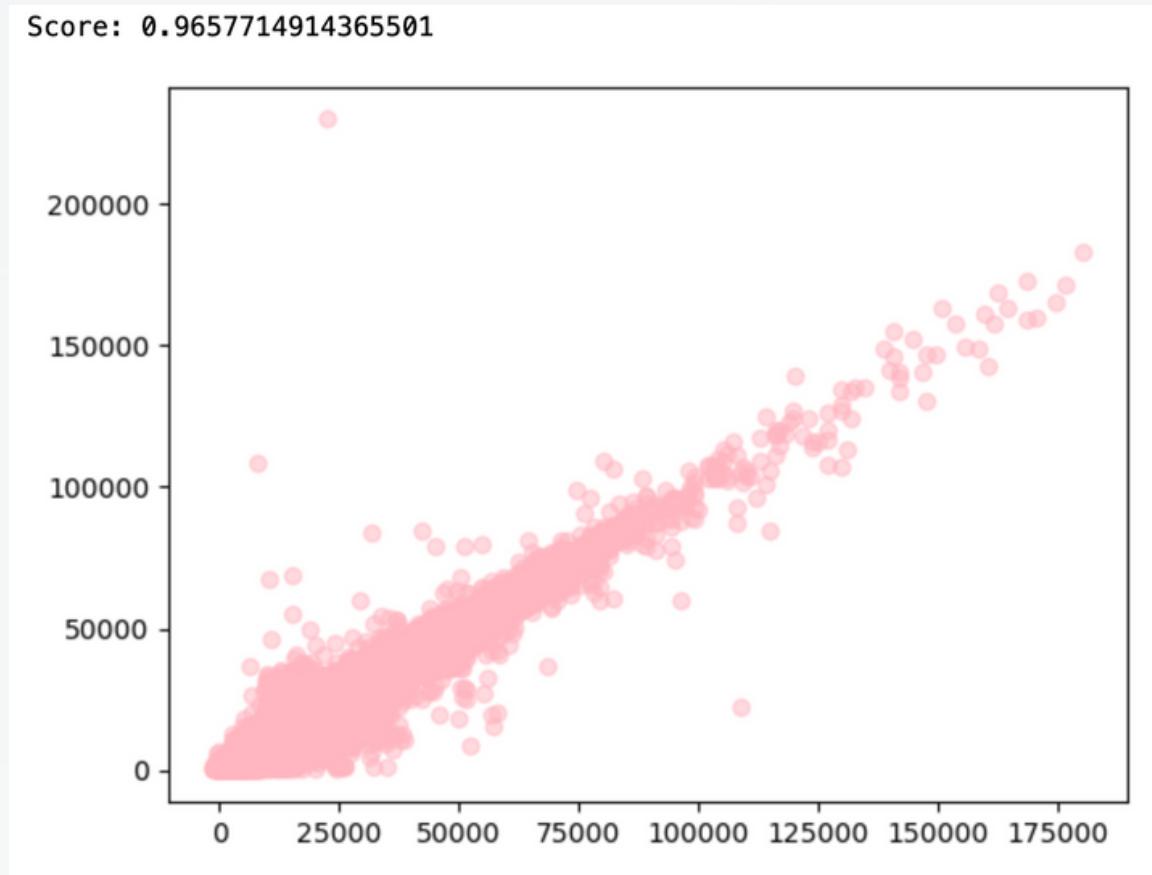
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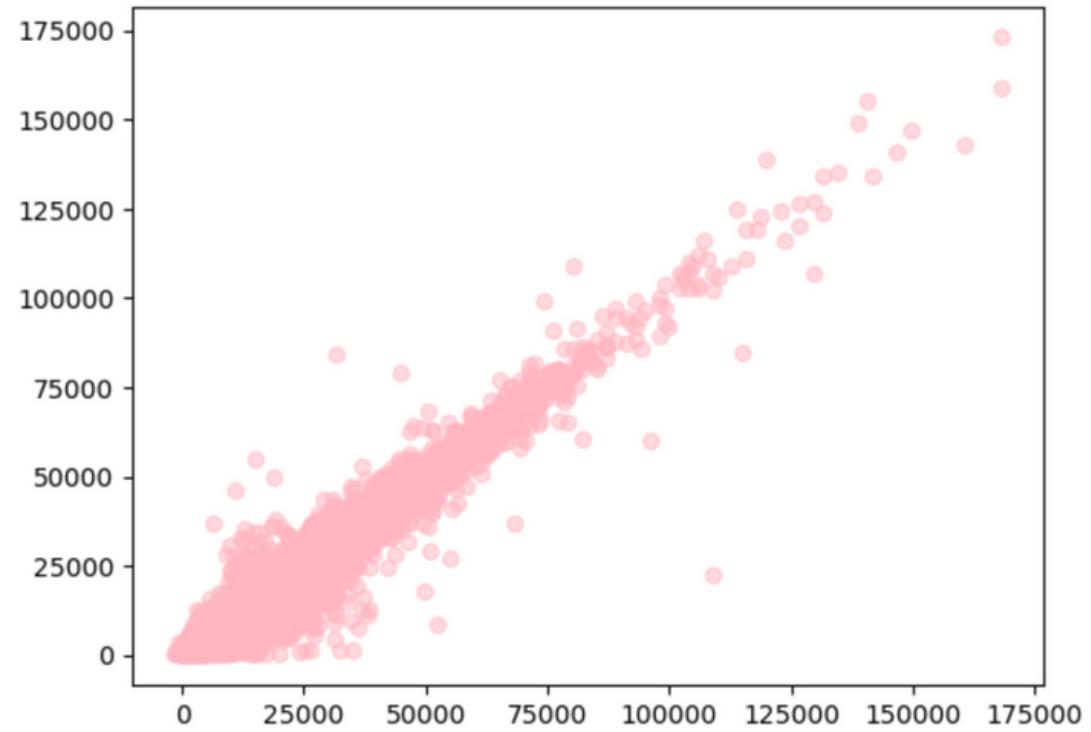
70%



50%



Score: 0.9676966401642308

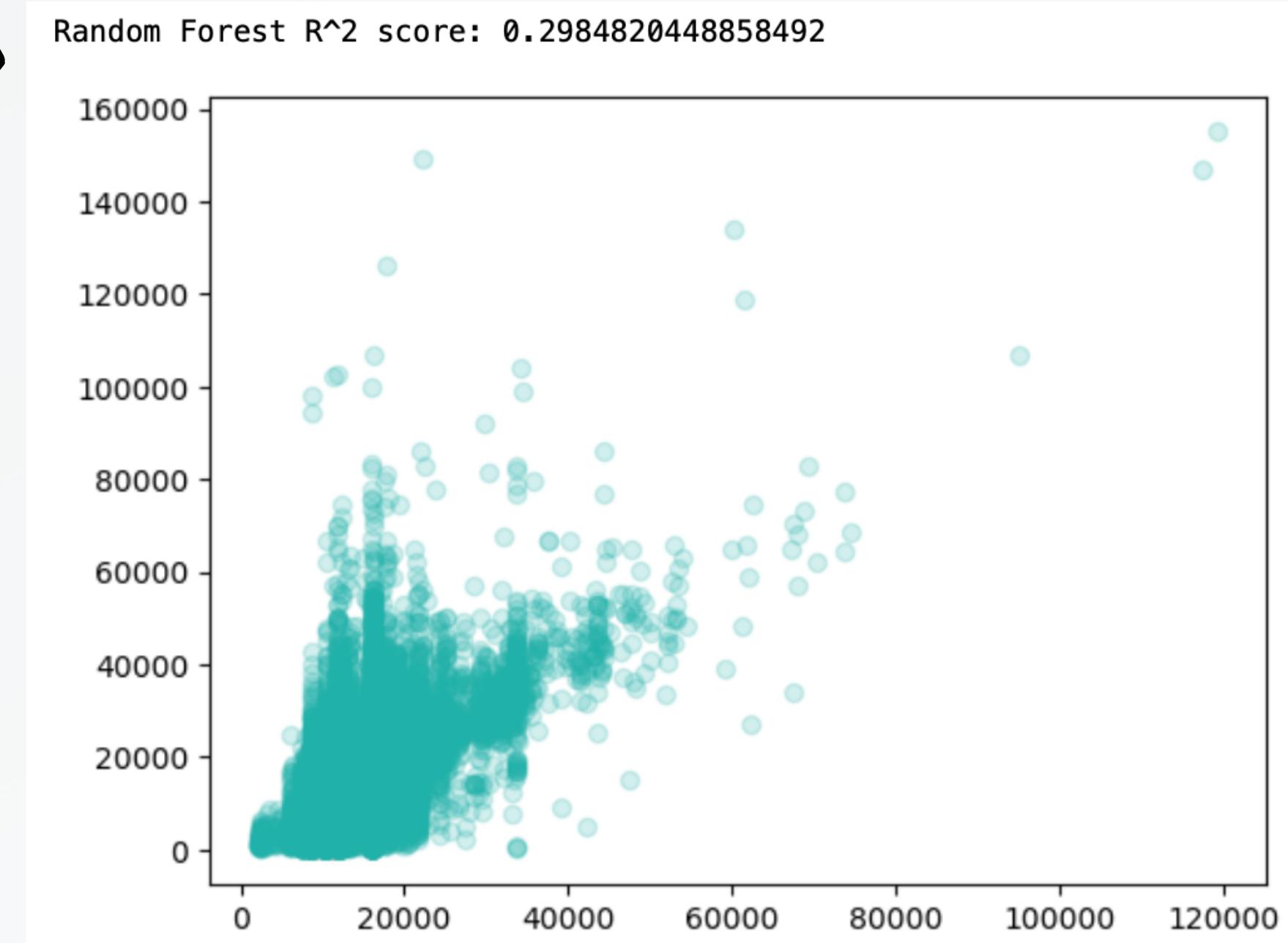


TEST

CONJECTURE 2

All categorial influence the Selling Price

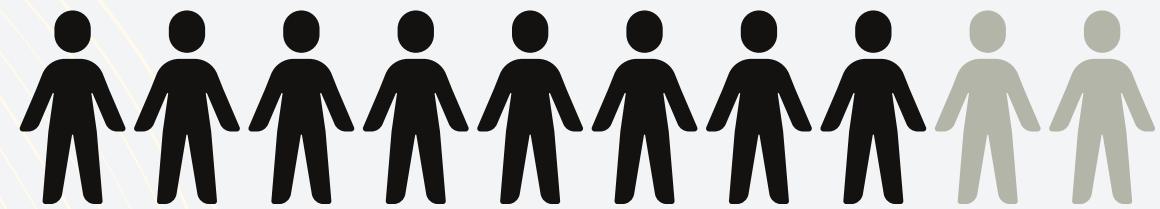
LOW ACCURACY



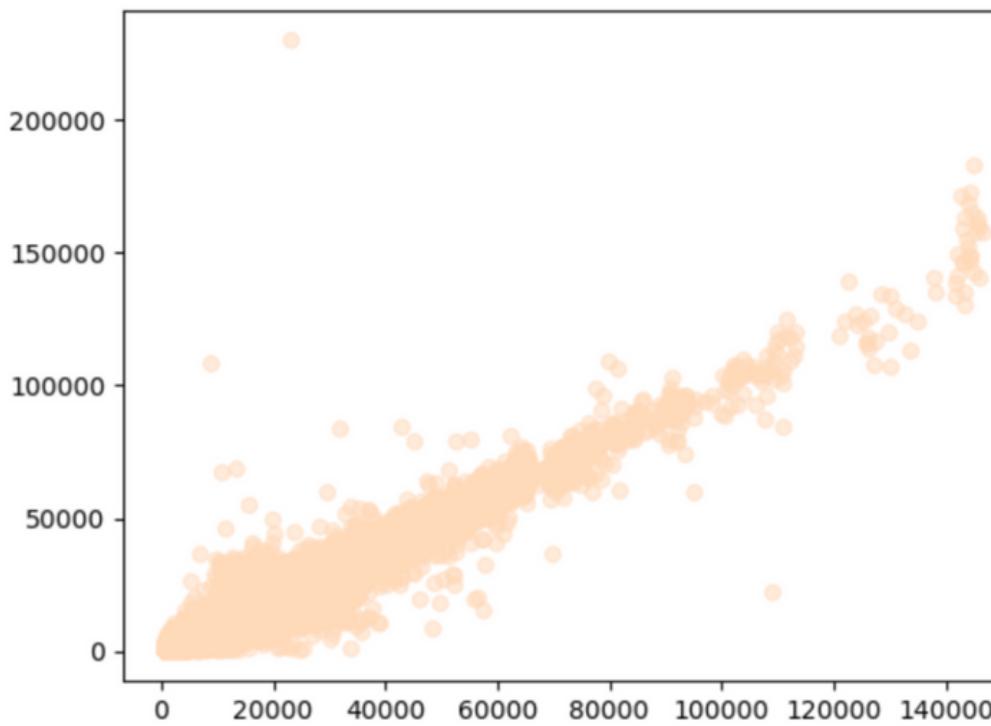
CONJECTURE 3

All Factors Influence the
Selling Price

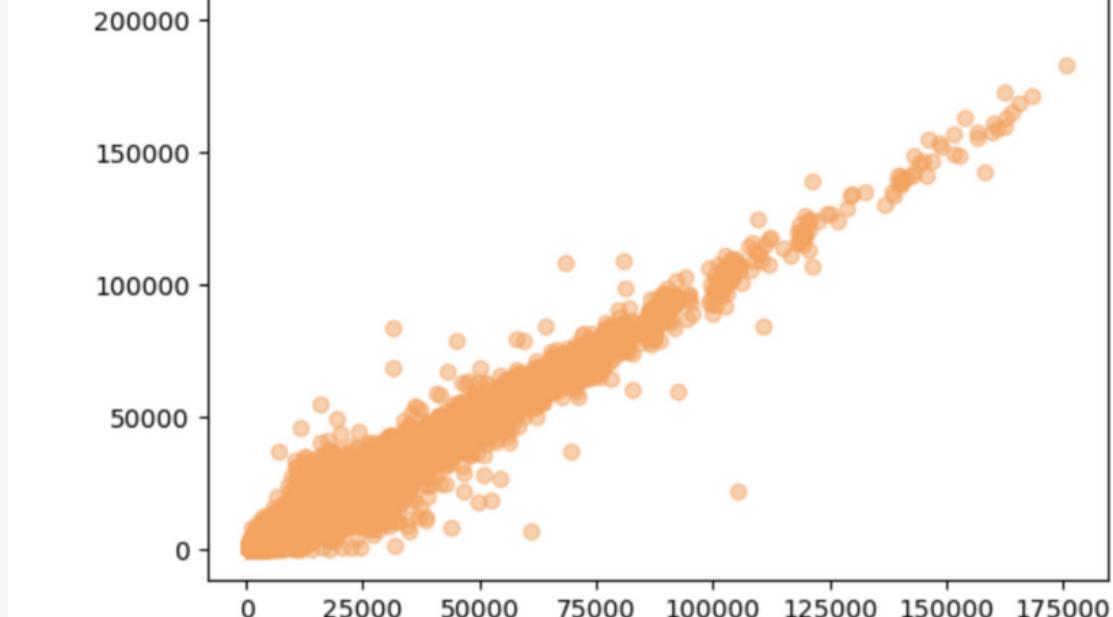
98%



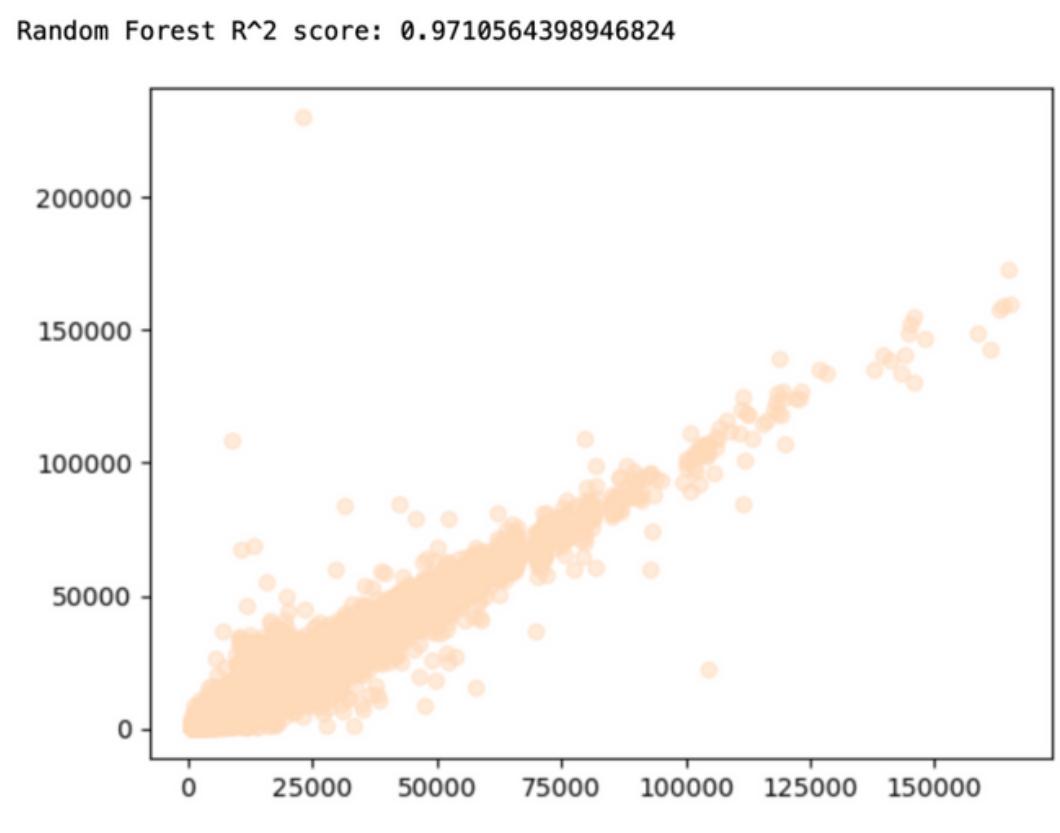
Random Forest R² score: 0.972061345806958



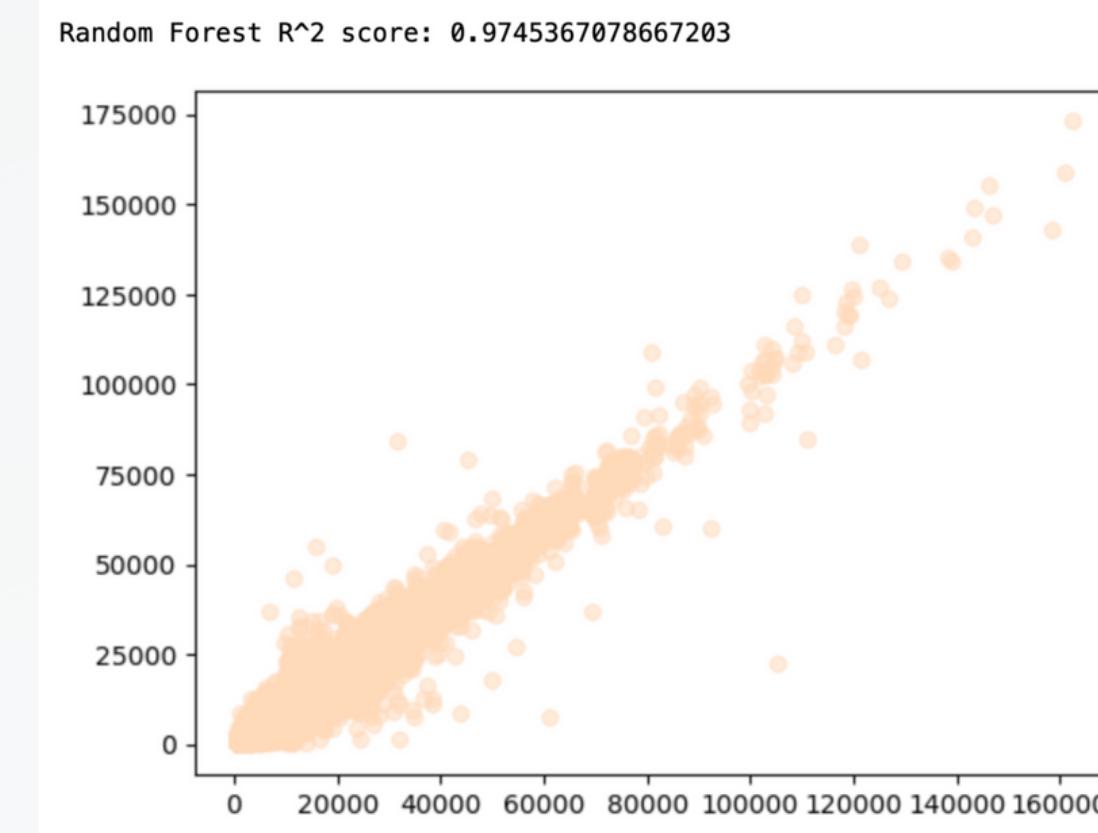
30%



70%



50%



TEST

RESULTS

WE FIND THE
MODEL



All numerical arguments are important factors that influence the price

MODEL 1



Some of the categorical factors are not important factors that influence the price

MODEL 2



Most factors could contribute to create the best model to predict the price

MODEL 3



**THANK'S FOR
WATCHING**

