

# **REINFORCEMENT TEST**

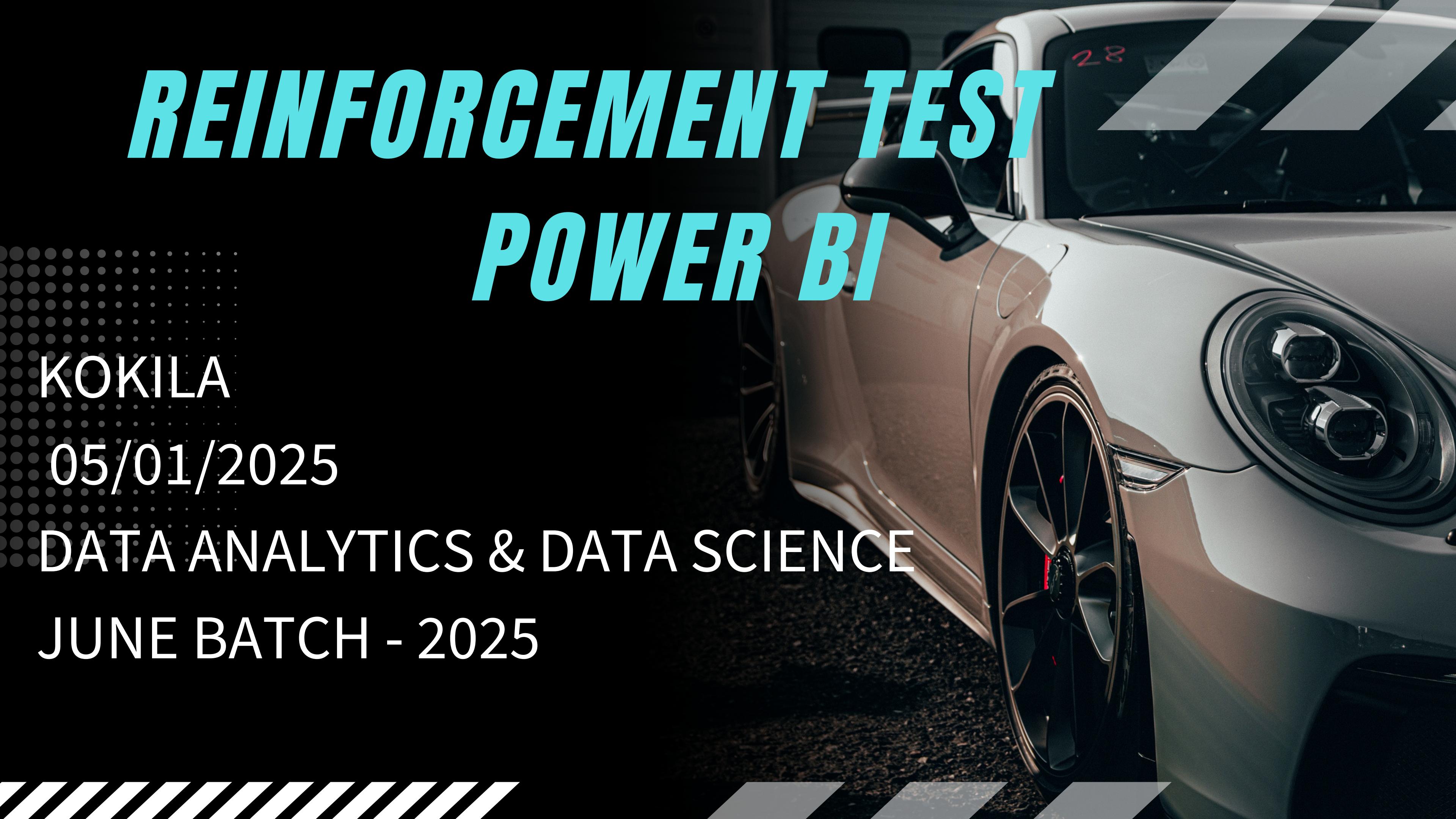
## **POWER BI**

KOKILA

05/01/2025

DATA ANALYTICS & DATA SCIENCE

JUNE BATCH - 2025



# INTRODUCTION

The car dataset contains details from 7 different brands, with 4 unique models under each brand. It includes information such as

- Purchase year
- Engine size
- Fuel type
- Transmission type
- Mileage
- Vehicle condition
- Car price.

# DATA PROCESSING

■ Import data into Power BI and then click transform data to load dataset into Power Query:

- Duplicate checked
- changed data types

■ **DAX FUNCTIONS:**

- Minimum
- Maximum
- Average
- Filter
- If condition
- Calculate

Brand  
All

Year  
All

# CAR PRICE ANALYSIS DASHBOARD

2499

Total Cars

52.63K

Average Price

99.98K

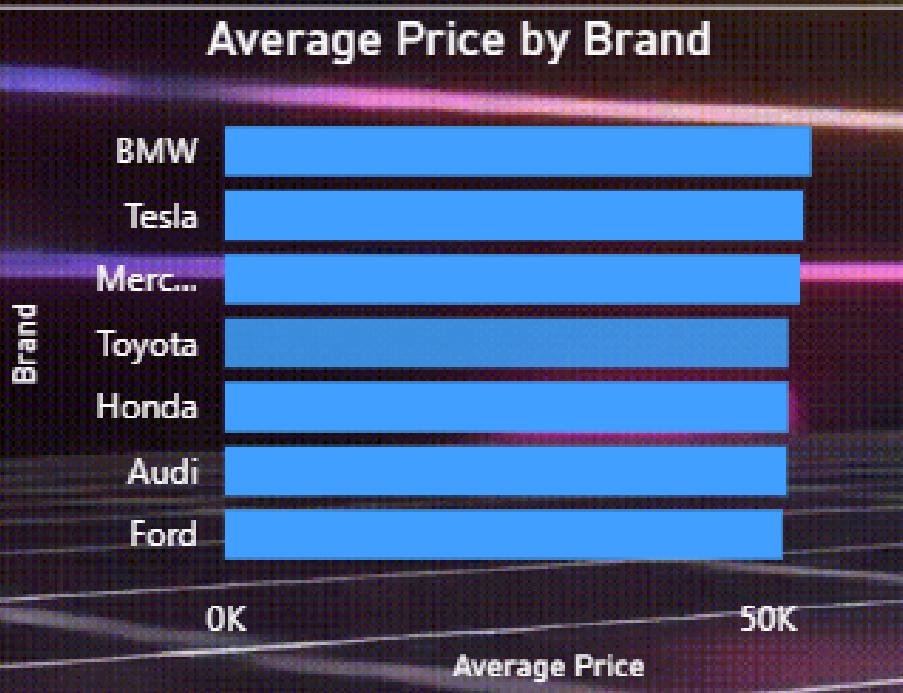
Max Price

5.01K

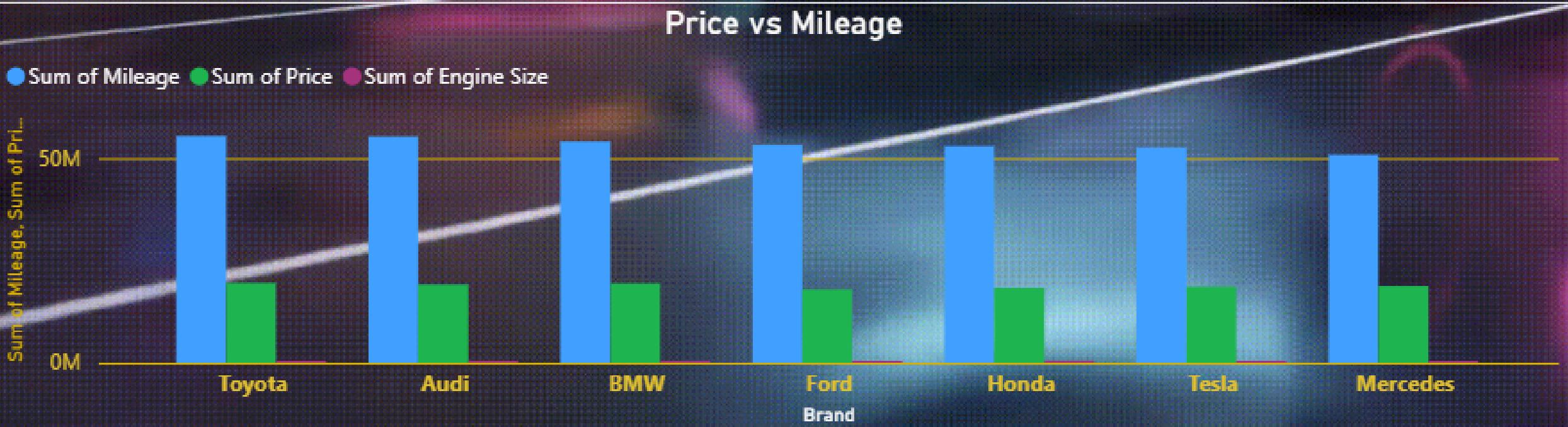
Min Price

149.71K

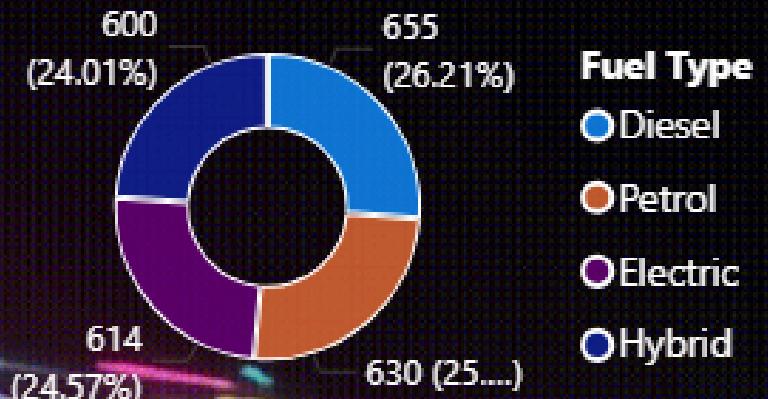
Avg Mileage



## Price vs Mileage



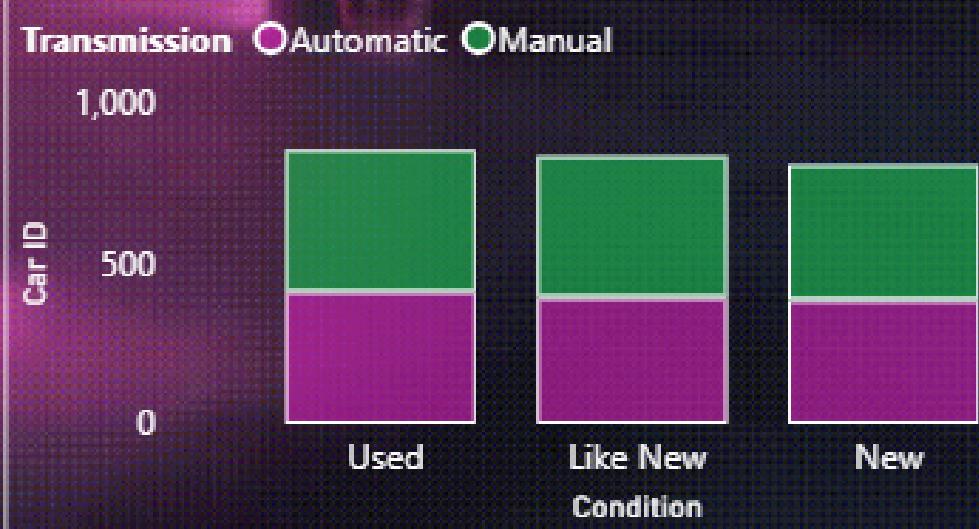
## Car ID by Fuel Type



## Average Price by Transmission



## Car ID by Condition and Transmission



Condition

All

Fuel Type

All

Transmission

All

Model

All



52.63K

Brand Avg Price



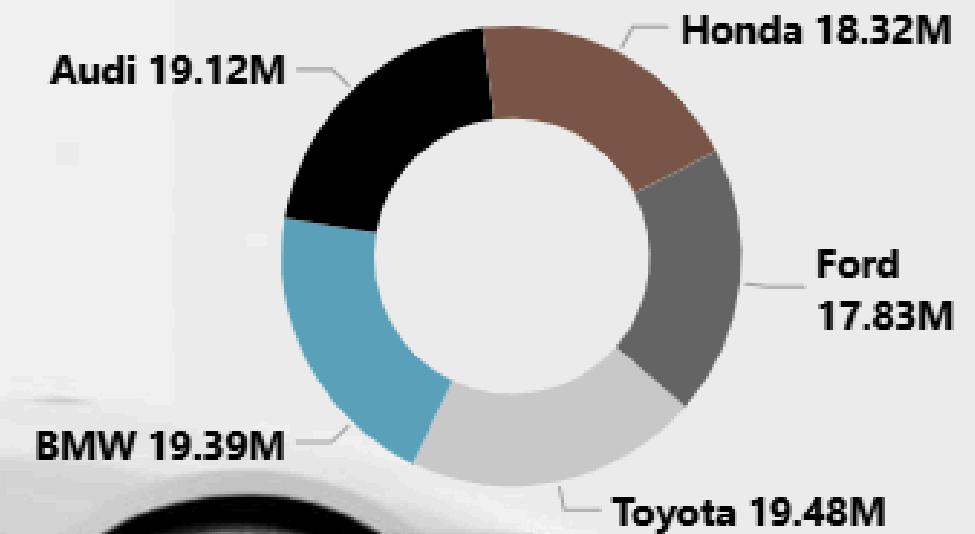
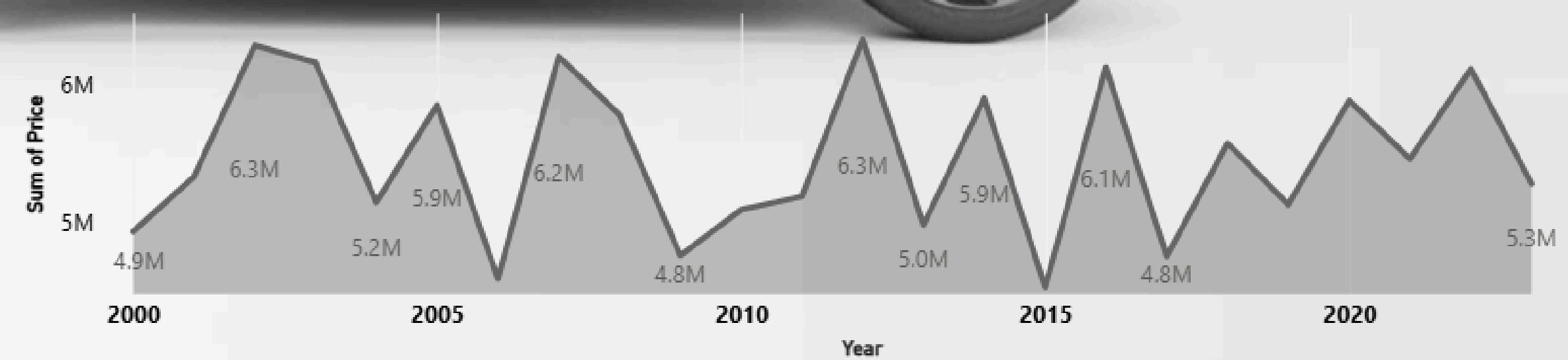
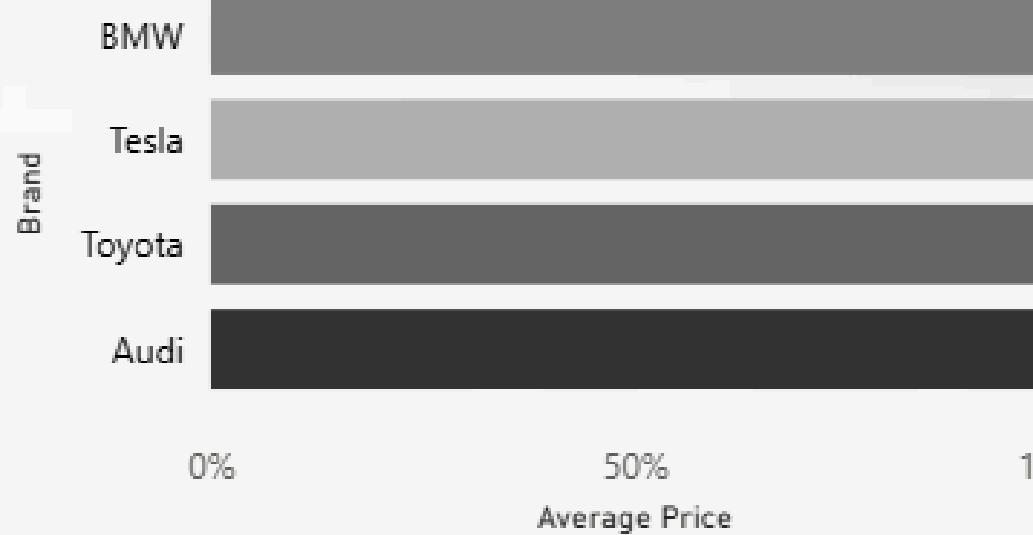
2499

Cars Per Brand



8.66K

Sum of Engine Size



Brand

All

Model

All

Fuel Type

All

Transmission

All



3.47

Avg Engine Size



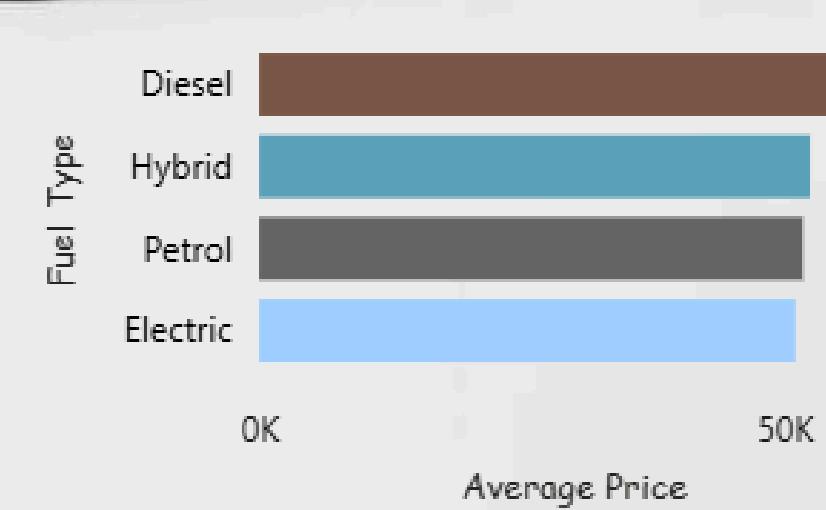
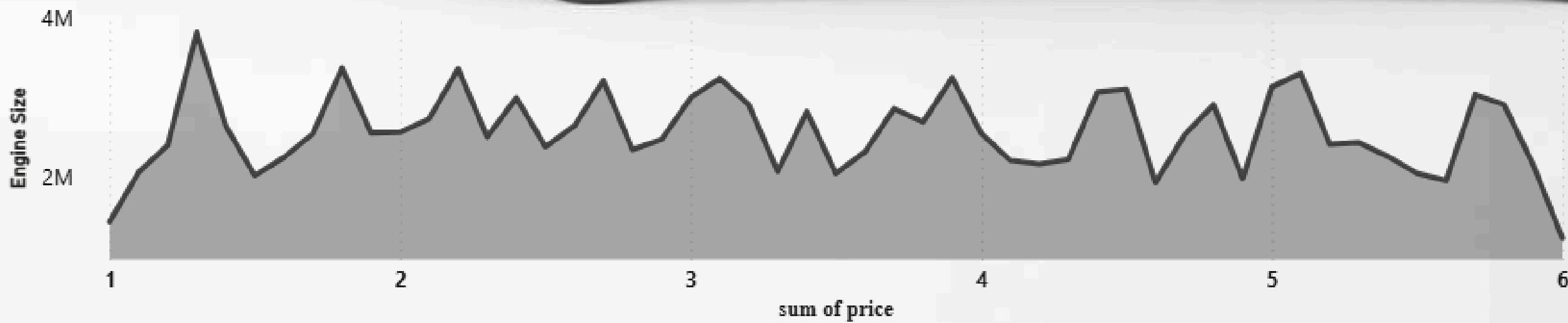
52.63K

Average Price



149.71K

Avg Mileage



Condition

All



149.71K

Avg Mileage

Year

All



52.63K

Avg Car Age

Condition

Used

Like New

New

809  
(32.37%)

855  
(34.21%)

835 (33.4...)



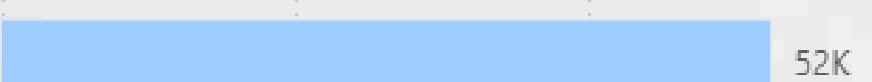
Average Price by Condition

Condition

Like New



Used



New

Sum of Price by Mileage

0K

20K

40K

60K

0K

50K

100K

150K

Average Price

Sum of Price

X

Brand

Condition

131.53M

Total Price

2499

Total Cars

### Car\_Price\_Details

Car ID	Brand	Sum of Price	Sum of Year	Car Age	Transmission	Model	Sum of Mileage	Fuel Type	Sum of Engine Size	Condition
1	BMW	70,569.63	2000	25	Automatic	3 Series	28810	Petrol	4.60	New
1	BMW	40,673.26	2000	25	Automatic	5 Series	114300	Electric	2.10	Like New
1	BMW	35,091.12	2000	25	Automatic	X3	56965	Hybrid	1.40	New
1	BMW	7,657.33	2000	25	Automatic	X5	258815	Petrol	4.00	Like New
1	BMW	64,720.38	2000	25	Manual	3 Series	296753	Hybrid	3.10	Used
1	BMW	80,341.84	2000	25	Manual	5 Series	71240	Diesel	4.00	New
1	BMW	97,165.62	2000	25	Manual	5 Series	23645	Electric	5.50	New
1433		7,62,51,636.63	2882702				212745900		4,938.50	



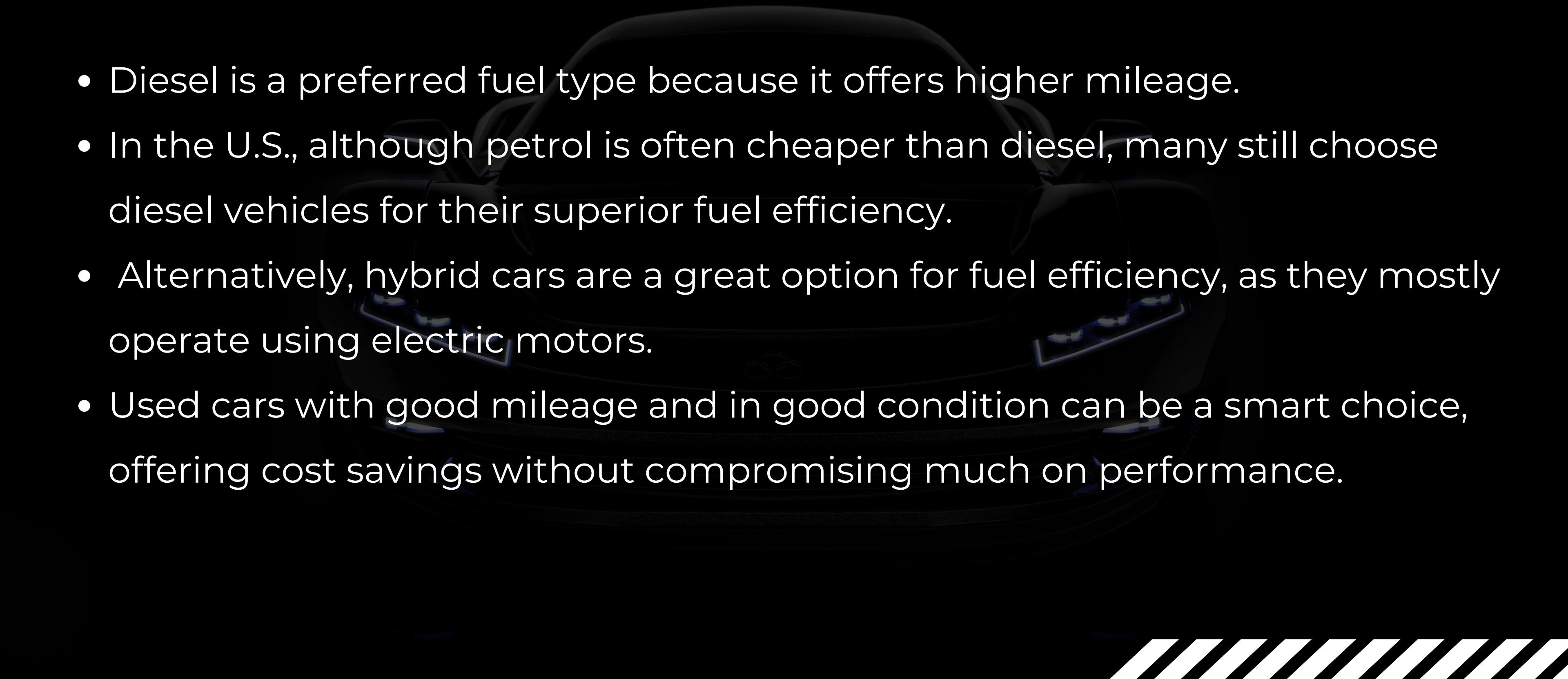
## Key Insights

- Premium brands dominate the top price segment.
- Cars older than 5 years show significant price depreciation.
- Higher mileage generally leads to lower resale value.
- Automatic transmission cars tend to have higher prices.

# INSIGHTS

- Brand value has a strong impact on car pricing; premium brands consistently maintain higher price.
- As mileage increase, car prices gradually decrease showing a negative relationship between usage and value.
- New cars dominate the higher price segment, while used cars are more common in the affordable price range.
- Fuel type influences market distribution; petrol and diesel vehicles dominate, while electric cars tend to have higher average prices.
- Cars with larger engine sizes generally have higher prices, indicating performance-driven value.
- Automatic transmission cars are priced higher on average compared to manual transmission cars.

# FINDINGS



- Diesel is a preferred fuel type because it offers higher mileage.
- In the U.S., although petrol is often cheaper than diesel, many still choose diesel vehicles for their superior fuel efficiency.
- Alternatively, hybrid cars are a great option for fuel efficiency, as they mostly operate using electric motors.
- Used cars with good mileage and in good condition can be a smart choice, offering cost savings without compromising much on performance.

# CONCLUSION

- Used luxury cars are the most preferred for their value and condition.
- Diesel is favored for better mileage, while hybrids are chosen for fuel efficiency.
- Manual cars lead in total value, though automatics are priced slightly higher.
- Most vehicles have 3.0–4.0L engines, with electric cars having larger sizes.
- Overall, buyers seek efficiency, performance, and smart savings.

**THANK YOU**

