I obtained a used car dataset from Kaggle, which I plan to clean and load into Power BI for data modeling and visualization. Initially, I imported the data into SQL Server using SSMS and performed some cleaning operations, as detailed below.

--Select and View all table

SELECT AskPrice FROM w3school.dbo.UsedCar

--Create a new Column called NewAskPrice

ALTER TABLE w3school.dbo.UsedCar ADD NewAskPrice INT;

--Remove "₹", space and comma from AskPrice, convert value to integer and write to new Column Created

UPDATE w3school.dbo.UsedCar

SET NewAskPrice = CAST(REPLACE(REPLACE(CAST(AskPrice AS VARCHAR(MAX)), '₹', ''), ',', '') AS INT);

--Select and View all table

SELECT \* FROM w3school.dbo.UsedCar

--Remove "km" and comma from KmDriven and convert value to integer, view NewKmDriven Column

SELECT

CAST(FLOOR(CAST(REPLACE(REPLACE(CAST(KmDriven AS VARCHAR(MAX)), 'km', ''), ',', '') AS FLOAT)) AS INT) AS NewKmDriven

FROM w3school.dbo.UsedCar;

--Create a new Column called NewKmDriven

ALTER TABLE w3school.dbo.UsedCar ADD NewKmDriven INT;

--Remove "km" and comma from KmDriven,convert value to integer and write to new Column Created

UPDATE w3school.dbo.UsedCar

SET NewKmDriven = CAST(FLOOR(CAST(REPLACE(REPLACE(CAST(KmDriven AS VARCHAR(MAX)), 'km', ''), ',', '') AS FLOAT)) AS INT);

Next, I imported the data into Power BI to begin creating visualizations. I developed the following visuals:

* **Card Visual**: Displays the count of brands, count of cars, total sales, and count of models.
* **Stacked Column Chart**: Shows the count of cars by brand and transmission type.
* **Line Chart**: Illustrates the asking price by the year of the car.
* **Donut Chart**: Represents the count of cars by fuel type.
* **Donut Chart**: Depicts the count of cars by owner type (first or second owner).
* **Clustered Column Chart**: Displays the average mileage driven by brand.
* **Stacked Column Chart**: Shows the average asking price by owner type (first or second owner).
* **Stacked Column Chart**: Illustrates the average asking price by fuel type (diesel, petrol, and hybrid/CNG).
* **Stacked Bar Chart**: Shows total sales by brand.
* **Stacked Column Chart**: Displays the average asking price by the age of the car.