USED CAR SALES IN UNITED STATES
EXCEL DASHBOARD PROJECT DESCRIPTION

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Project Objective:

•Collected raw data from **Kaggle**.

•Designed an **interactive Excel dashboard** for analysis.

•Focused on key performance indicators (KPIs):

- Manufacturer
- Location (State/Region)
- Energy Type
- Mileage
- Top Distributor

•Showcased how these KPIs influence **used car sales in the United States.**

Functions used:

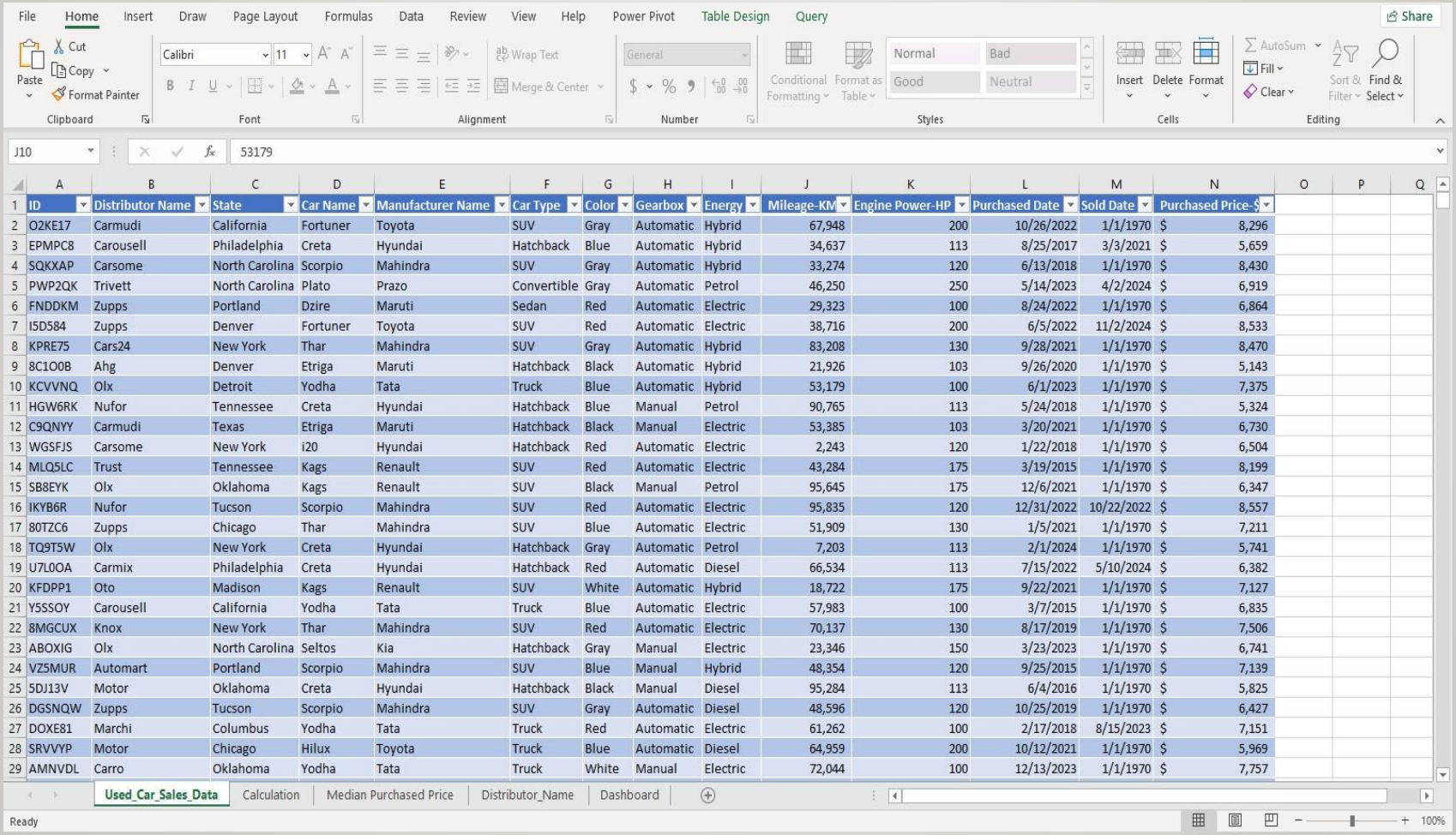
Following functions were employed while building this dashboard;

- UNIQUE
- SORT
- COUNTIF
- AVERAGEIF
- XLOOKUP
- IF

In addition to these functions **Data Validation** was also used.

Step 1:

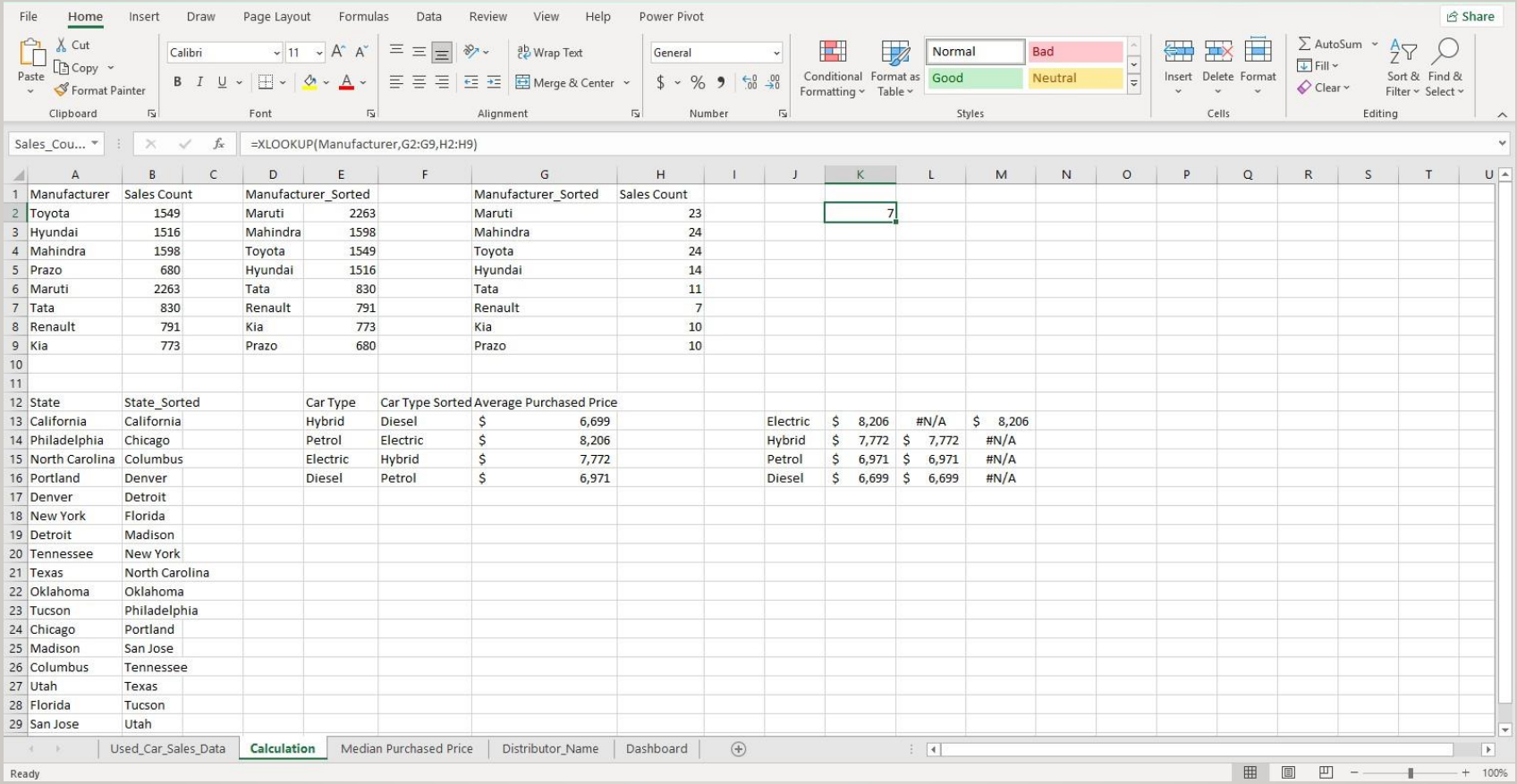
For this Project raw data was imported in the form of a csv file from Kaggle and the loaded in Excel.After doing that the data was formatted in the form of a table.Colums were formatted according to their data type e.g currency,date and number format etc.



ID	Distributor Name	State	Car Name	Manufacturer Name	Car Type	Color	Gearbox	Energy	Mileage-KM	Engine Power-HP	Purchased Date	Sold Date	Purchased Price-$
O2KE17	Carmudi	California	Fortuner	Toyota	SUV	Gray	Automatic	Hybrid	67,948	200	10/26/2022	1/1/1970	$ 8,296
EPMPC8	Carousell	Philadelphia	Creta	Hyundai	Hatchback	Blue	Automatic	Hybrid	34,637	113	8/25/2017	3/3/2021	$ 5,659
SQKXAP	Carsome	North Carolina	Scorpio	Mahindra	SUV	Gray	Automatic	Hybrid	33,274	120	6/13/2018	1/1/1970	$ 8,430
PWP2QK	Trivett	North Carolina	Plato	Prazo	Convertible	Gray	Automatic	Petrol	46,250	250	5/14/2023	4/2/2024	$ 6,919
FNDDKM	Zupps	Portland	Dzire	Maruti	Sedan	Red	Automatic	Electric	29,323	100	8/24/2022	1/1/1970	$ 6,864
I5D584	Zupps	Denver	Fortuner	Toyota	SUV	Red	Automatic	Electric	38,716	200	6/5/2022	11/2/2024	$ 8,533
KPRE75	Cars24	New York	Thar	Mahindra	SUV	Gray	Automatic	Hybrid	83,208	130	9/28/2021	1/1/1970	$ 8,470
8C1O0B	Ahg	Denver	Etriga	Maruti	Hatchback	Black	Automatic	Hybrid	21,926	103	9/26/2020	1/1/1970	$ 5,143
KCVVNQ	Olx	Detroit	Yodha	Tata	Truck	Blue	Automatic	Hybrid	53,179	100	6/1/2023	1/1/1970	$ 7,375
HGW6RK	Nufor	Tennessee	Creta	Hyundai	Hatchback	Blue	Manual	Petrol	90,765	113	5/24/2018	1/1/1970	$ 5,324
C9QNYY	Carmudi	Texas	Etriga	Maruti	Hatchback	Black	Manual	Electric	53,385	103	3/20/2021	1/1/1970	$ 6,730
WGSFJS	Carsome	New York	i20	Hyundai	Hatchback	Red	Automatic	Electric	2,243	120	1/22/2018	1/1/1970	$ 6,504
MLQ5LC	Trust	Tennessee	Kags	Renault	SUV	Red	Automatic	Electric	43,284	175	3/19/2015	1/1/1970	$ 8,199
SB8EYK	Olx	Oklahoma	Kags	Renault	SUV	Black	Manual	Petrol	95,645	175	12/6/2021	1/1/1970	$ 6,347
IKYB6R	Nufor	Tucson	Scorpio	Mahindra	SUV	Red	Automatic	Electric	95,835	120	12/31/2022	10/22/2022	$ 8,557
80TZC6	Zupps	Chicago	Thar	Mahindra	SUV	Blue	Automatic	Electric	51,909	130	1/5/2021	1/1/1970	$ 7,211
TQ9T5W	Olx	New York	Creta	Hyundai	Hatchback	Gray	Automatic	Petrol	7,203	113	2/1/2024	1/1/1970	$ 5,741
U7L0OA	Carmix	Philadelphia	Creta	Hyundai	Hatchback	Red	Automatic	Diesel	66,534	113	7/15/2022	5/10/2024	$ 6,382
KFDPP1	Oto	Madison	Kags	Renault	SUV	White	Automatic	Hybrid	18,722	175	9/22/2021	1/1/1970	$ 7,127
Y5SSOY	Carousell	California	Yodha	Tata	Truck	Blue	Automatic	Electric	57,983	100	3/7/2015	1/1/1970	$ 6,835
8MGCUX	Knox	New York	Thar	Mahindra	SUV	Red	Automatic	Electric	70,137	130	8/17/2019	1/1/1970	$ 7,506
ABOXIG	Olx	North Carolina	Seltos	Kia	Hatchback	Gray	Manual	Electric	23,346	150	3/23/2023	1/1/1970	$ 6,741
VZ5MUR	Automart	Portland	Scorpio	Mahindra	SUV	Blue	Manual	Hybrid	48,354	120	9/25/2015	1/1/1970	$ 7,139
5DJ13V	Motor	Oklahoma	Creta	Hyundai	Hatchback	Black	Manual	Diesel	95,284	113	6/4/2016	1/1/1970	$ 5,825
DGSNQW	Zupps	Tucson	Scorpio	Mahindra	SUV	Gray	Automatic	Diesel	48,596	120	10/25/2019	1/1/1970	$ 6,427
DOXE81	Marchi	Columbus	Yodha	Tata	Truck	Red	Automatic	Electric	61,262	100	2/17/2018	8/15/2023	$ 7,151
SRVVYP	Motor	Chicago	Hilux	Toyota	Truck	Blue	Automatic	Diesel	64,959	200	10/12/2021	1/1/1970	$ 5,969
AMNVDL	Carro	Oklahoma	Yodha	Tata	Truck	White	Manual	Electric	72,044	100	12/13/2023	1/1/1970	$ 7,757

Step 2:

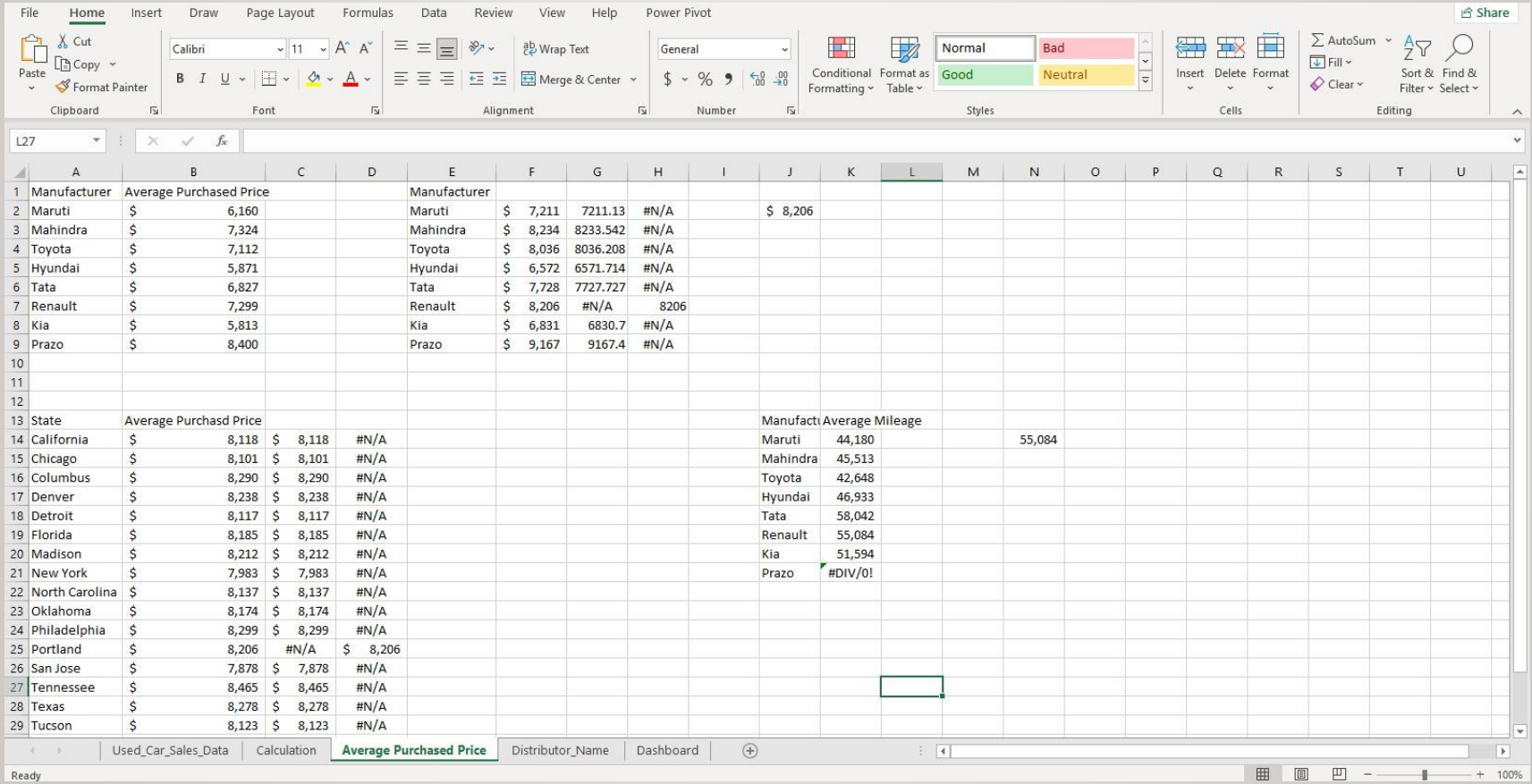
In the next step the actual process of creating a dashboard was initiated.KPIs like **Manufacturer,State**(Location),**Energy Type** and **Top Distributors** were identified and were uniquely sorted by employing **UNIQUE** and **SORT** function.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Manufacturer	Sales Count		Manufacturer_Sorted			Manufacturer_Sorted	Sales Count													
2	Toyota	1549		Maruti	2263		Maruti	23			7										
3	Hyundai	1516		Mahindra	1598		Mahindra	24													
4	Mahindra	1598		Toyota	1549		Toyota	24													
5	Prazo	680		Hyundai	1516		Hyundai	14													
6	Maruti	2263		Tata	830		Tata	11													
7	Tata	830		Renault	791		Renault	7													
8	Renault	791		Kia	773		Kia	10													
9	Kia	773		Prazo	680		Prazo	10													
10																					
11																					
12	State	State_Sorted			Car Type	Car Type Sorted	Average Purchased Price														
13	California	California			Hybrid	Diesel	$ 6,699			Electric	$ 8,206	#N/A	$ 8,206								
14	Philadelphia	Chicago			Petrol	Electric	$ 8,206			Hybrid	$ 7,772	$ 7,772	#N/A								
15	North Carolina	Columbus			Electric	Hybrid	$ 7,772			Petrol	$ 6,971	$ 6,971	#N/A								
16	Portland	Denver			Diesel	Petrol	$ 6,971			Diesel	$ 6,699	$ 6,699	#N/A								
17	Denver	Detroit																			
18	New York	Florida																			
19	Detroit	Madison																			
20	Tennessee	New York																			
21	Texas	North Carolina																			
22	Oklahoma	Oklahoma																			
23	Tucson	Philadelphia																			
24	Chicago	Portland																			
25	Madison	San Jose																			
26	Columbus	Tennessee																			
27	Utah	Texas																			
28	Florida	Tucson																			
29	San Jose	Utah																			

Step 3:

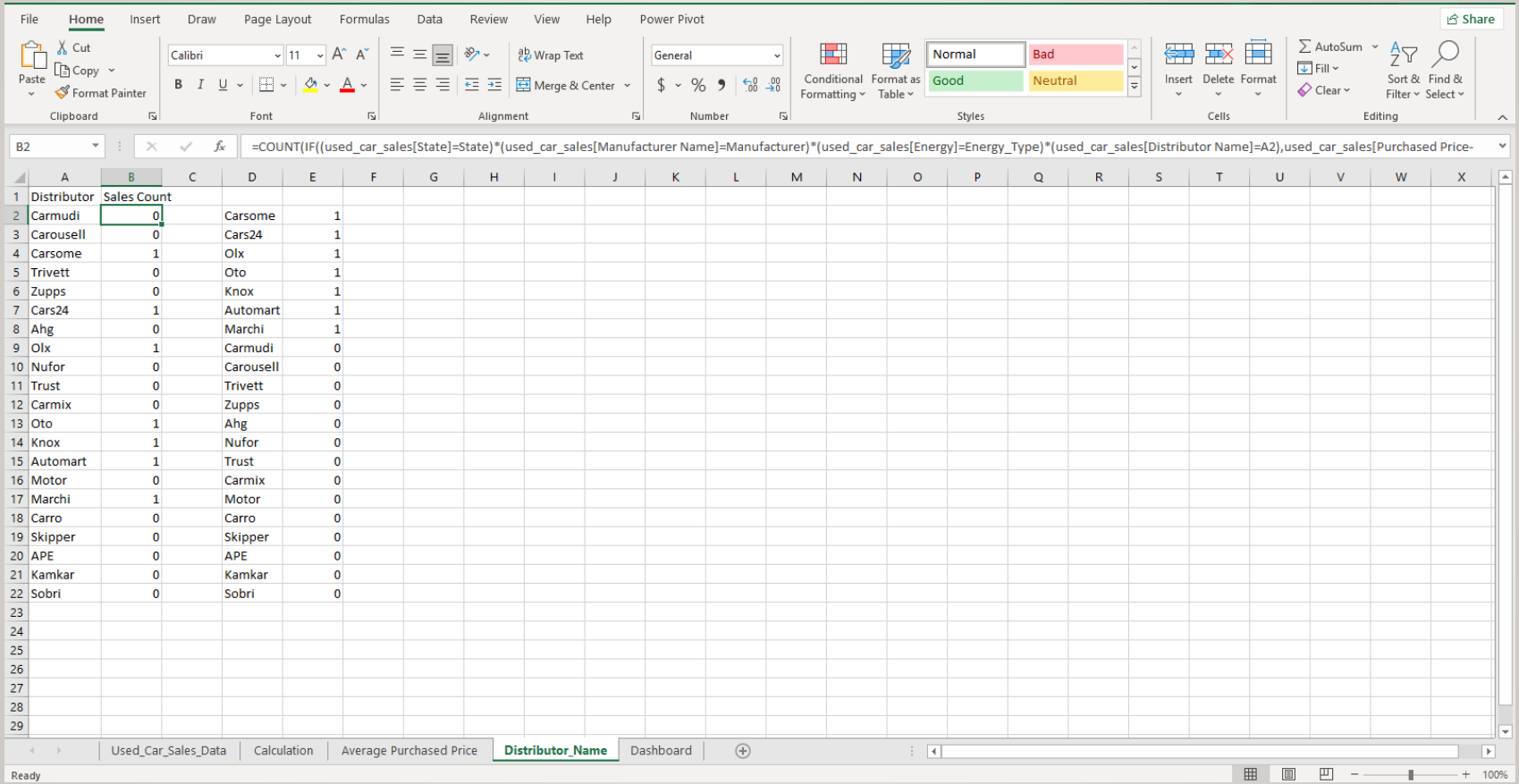
Then for manufacturer **COUNTIF** and AVERAGEIF functions were used.**Average Purchase Price** for state was also measured using **AVERAGEIF** function.In order to calculate **Average Mileage** for each manufacturer I also used **AVERAGEIF** function.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Manufacturer	Average Purchased Price			Manufacturer																
2	Maruti	$ 6,160			Maruti	$ 7,211	7211.13	#N/A		$ 8,206											
3	Mahindra	$ 7,324			Mahindra	$ 8,234	8233.542	#N/A													
4	Toyota	$ 7,112			Toyota	$ 8,036	8036.208	#N/A													
5	Hyundai	$ 5,871			Hyundai	$ 6,572	6571.714	#N/A													
6	Tata	$ 6,827			Tata	$ 7,728	7727.727	#N/A													
7	Renault	$ 7,299			Renault	$ 8,206	#N/A	8206													
8	Kia	$ 5,813			Kia	$ 6,831	6830.7	#N/A													
9	Prazo	$ 8,400			Prazo	$ 9,167	9167.4	#N/A													
10																					
11																					
12																					
13	State	Average Purchasd Price								Manufacti	Average Mileage										
14	California	$ 8,118	$ 8,118	#N/A						Maruti	44,180			55,084							
15	Chicago	$ 8,101	$ 8,101	#N/A						Mahindra	45,513										
16	Columbus	$ 8,290	$ 8,290	#N/A						Toyota	42,648										
17	Denver	$ 8,238	$ 8,238	#N/A						Hyundai	46,933										
18	Detroit	$ 8,117	$ 8,117	#N/A						Tata	58,042										
19	Florida	$ 8,185	$ 8,185	#N/A						Renault	55,084										
20	Madison	$ 8,212	$ 8,212	#N/A						Kia	51,594										
21	New York	$ 7,983	$ 7,983	#N/A						Prazo	#DIV/0!										
22	North Carolina	$ 8,137	$ 8,137	#N/A																	
23	Oklahoma	$ 8,174	$ 8,174	#N/A																	
24	Philadelphia	$ 8,299	$ 8,299	#N/A																	
25	Portland	$ 8,206	#N/A	$ 8,206																	
26	San Jose	$ 7,878	$ 7,878	#N/A																	
27	Tennessee	$ 8,465	$ 8,465	#N/A																	
28	Texas	$ 8,278	$ 8,278	#N/A																	
29	Tucson	$ 8,123	$ 8,123	#N/A																	

Step 4:

UNIQUE and **SOR**T functions were also used to enlist **Top Distributors**.Then COUNTIF function was used to count the number of sales made by each distributor in correspondence to state,manufacturer and energy type.



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B2

=COUNT(IF((used_car_sales[State]=State)*(used_car_sales[Manufacturer Name]=Manufacturer)*(used_car_sales[Energy]=Energy_Type)*(used_car_sales[Distributor Name]=A2),used_car_sales[Purchased Price-

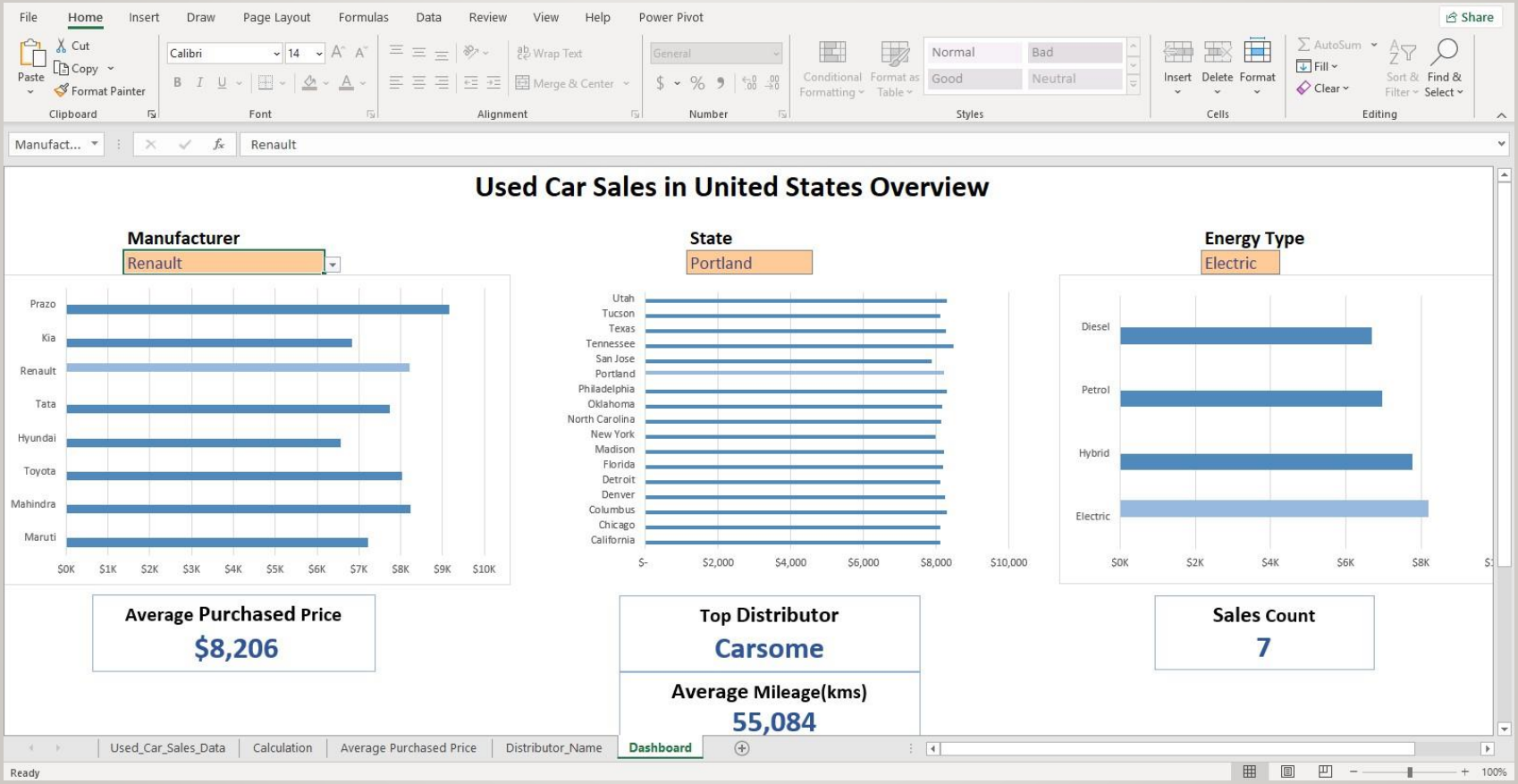
	A	B	C	D	E
1	Distributor	Sales Count			
2	Carmudi	0		Carsome	1
3	Carousell	0		Cars24	1
4	Carsome	1		Olx	1
5	Trivett	0		Oto	1
6	Zupps	0		Knox	1
7	Cars24	1		Automart	1
8	Ahg	0		Marchi	1
9	Olx	1		Carmudi	0
10	Nufor	0		Carousell	0
11	Trust	0		Trivett	0
12	Carmix	0		Zupps	0
13	Oto	1		Ahg	0
14	Knox	1		Nufor	0
15	Automart	1		Trust	0
16	Motor	0		Carmix	0
17	Marchi	1		Motor	0
18	Carro	0		Carro	0
19	Skipper	0		Skipper	0
20	APE	0		APE	0
21	Kamkar	0		Kamkar	0
22	Sobri	0		Sobri	0

Used_Car_Sales_Data | Calculation | Average Purchased Price | Distributor_Name | Dashboard

Ready 100%

Step 5:

The final dashoboard also included KPIs like **Sales Count** and **Average Purchase Price** in addition to **Manufacturer,State,Energy Type** and **Top Distributor** information.



For collaboration,feedback and suggestions regarding this project feel free to mail me at shahidabbas2104514.@gmail.com