Indian Cars Exploratory Data Analysis Summary

Dataset Shape: (1267, 134)

Unique Car Makers: 41

Unique Car Models: 263

Statistical Exploration of Numeric Columns

df.describe()

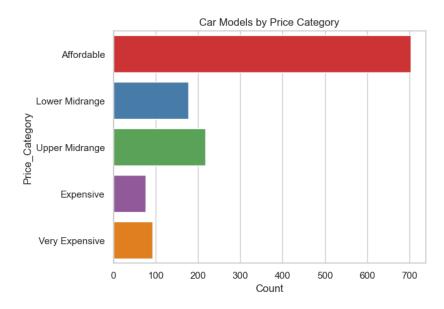
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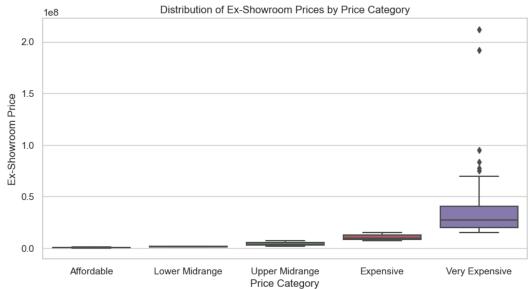
	Ex- Showroom_Price	Displacement	Cylinders	Valves_Per_Cylinder	Fuel_Tank_Capacity	Height	Length	Width	Doors	City_M
count	1.267000e+03	1267.000000	1267.000000	1267.000000	1267.000000	1267.000000	1267.000000	1255.000000	1267.000000	1267.0
mean	4.617330e+06	1853.103394	4.363852	3.979479	51.658958	1589.688118	4294.837127	1787.822984	4.548540	36.0
std	1.218793e+07	1062.117689	1.625057	0.802576	16.050371	157.565493	477.682420	151.227266	0.748756	730.9
min	2.364470e+05	72.000000	2.000000	1.000000	15.000000	1.845000	4.640000	1.845000	2.000000	2.0
25%	7.405535e+05	1198.000000	4.000000	4.000000	41.000000	1495.000000	3991.000000	1695.000000	4.000000	14.0
50%	1.055000e+06	1497.000000	4.000000	4.000000	46.000000	1555.000000	4329.000000	1770.000000	5.000000	15.1
75%	2.991400e+06	1998.000000	4.000000	4.000000	60.000000	1660.000000	4620.000000	1850.000000	5.000000	16.0
max	2.121554e+08	7993.000000	16.000000	16.000000	105.000000	2670.000000	6092.000000	2226.000000	5.000000	26032.0

Correlation Heatmap

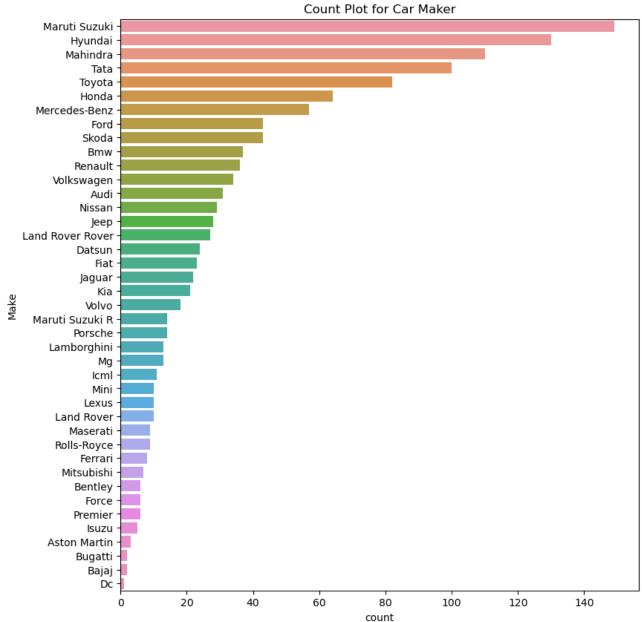
	ce - 1.00 0.79 0.82 0.03 0.46 -0.19 0.40 0.42 -0.46 -0.01 -0.30 -0.04 0.43 0.39 -0.03 0.31 0.35 -0.31 0.42 0.04 -0.01 0.32 0.3																						
Ex-Showroom_Price -	1.00	0.79	0.82	0.03	0.46	-0.19	0.40	0.42	-0.46	-0.01	-0.30	-0.04	0.43	0.39	-0.03	0.31	0.35	-0.31	0.42	0.04	-0.01	0.32	0.33
Displacement -	0.79	1.00	0.88	0.03	0.73	-0.03	0.65	0.62	-0.47	-0.01	-0.47	-0.00	0.64	0.51	0.00	0.47	0.51	-0.16	0.65	0.15	0.01	0.55	0.51
Cylinders -	0.82	0.88	1.00	-0.00	0.64	-0.17	0.54	0.52	-0.50	-0.01	-0.40	0.02	0.53	0.47	-0.02	0.40	0.46	-0.31	0.53	0.10	-0.01	0.39	0.44
Valves_Per_Cylinder -	0.03	0.03	-0.00	1.00	0.05	-0.07	0.08	0.05	-0.03	0.00	-0.03	-0.01	0.06	0.05	-0.07	0.10	0.08	-0.02	0.07	0.00	0.00	0.05	0.12
Fuel_Tank_Capacity -	0.46	0.73	0.64	0.05	1.00	0.14	0.75	0.69	-0.30	-0.02	-0.46	-0.03	0.72	0.56	0.12	0.47	0.54	0.02	0.75	0.28	0.02	0.65	0.61
Height -	-0.19	-0.03	-0.17	-0.07	0.14	1.00	0.13	0.17	0.52	-0.02	-0.06	-0.04	0.29	-0.04	0.42	0.05	0.02	0.72	0.21	0.14	0.19	0.40	-0.07
Length -	0.40	0.65	0.54	0.08	0.75	0.13	1.00	0.80	-0.27	0.01	-0.42	-0.02	0.68	0.59	0.10	0.57	0.60	0.12	0.89	0.39	0.07	0.59	0.64
Width -	0.42	0.62	0.52	0.05	0.69	0.17	0.80	1.00	-0.15	-0.01	-0.34	-0.04	0.62	0.62	0.19	0.64	0.67	0.02	0.72	0.27	0.02	0.55	0.58
Doors -	-0.46	-0.47	-0.50	-0.03	-0.30	0.52	-0.27	-0.15	1.00	-0.02	0.28	0.01	-0.15	-0.21	0.31	-0.13	-0.19	0.52	-0.15	-0.03	0.02	-0.02	-0.19
City_Mileage -	-0.01	-0.01	-0.01	0.00	-0.02	-0.02	0.01	-0.01	-0.02	1.00	0.01	0.00	-0.02	0.00	-0.01	-0.00	-0.00	-0.01	-0.00	0.02	-0.00	-0.02	-0.02
Highway_Mileage -	-0.30	-0.47	-0.40	-0.03	-0.46	-0.06	-0.42	-0.34	0.28	0.01	1.00	0.07	-0.38	-0.23	-0.02	-0.24	-0.28	0.02	-0.40	-0.14	-0.00	-0.38	-0.27
Combined_ARIA_Mileage -	-0.04	-0.00	0.02	-0.01	-0.03	-0.04	-0.02	-0.04	0.01	0.00	0.07	1.00	-0.03	-0.02	-0.07	-0.03	-0.03	-0.01	-0.01	-0.00	-0.00	-0.06	0.00
Kerb_Weight -	0.43	0.64	0.53	0.06	0.72	0.29	0.68	0.62	-0.15	-0.02	-0.38	-0.03	1.00	0.51	0.26	0.45	0.52	0.18	0.70	0.30	0.07	0.73	0.54
Gears -	0.39	0.51	0.47	0.05	0.56	-0.04	0.59	0.62	-0.21	0.00	-0.23	-0.02	0.51	1.00	0.11	0.50	0.50	-0.12	0.60	0.21	-0.02	0.40	0.61
Ground_Clearance -	-0.03	0.00	-0.02	-0.07	0.12	0.42	0.10	0.19	0.31	-0.01	-0.02	-0.07	0.26	0.11	1.00	0.08	0.10	0.25	0.13	0.26	0.00	0.23	0.07
Front_Track -	0.31	0.47	0.40	0.10	0.47	0.05	0.57	0.64	-0.13	-0.00	-0.24	-0.03	0.45	0.50	0.08	1.00	0.82	0.01	0.59	0.19	0.00	0.40	0.47
Rear_Track -	0.35	0.51	0.46	0.08	0.54	0.02	0.60	0.67	-0.19	-0.00	-0.28	-0.03	0.52	0.50	0.10	0.82	1.00	-0.04	0.62	0.18	0.00	0.47	0.50
Seating_Capacity -	-0.31	-0.16	-0.31	-0.02	0.02	0.72	0.12	0.02	0.52	-0.01	0.02	-0.01	0.18	-0.12	0.25	0.01	-0.04	1.00	0.16	0.06	0.27	0.31	-0.08
Wheelbase -	0.42	0.65	0.53	0.07	0.75	0.21	0.89	0.72	-0.15	-0.00	-0.40	-0.01	0.70	0.60	0.13	0.59	0.62	0.16	1.00	0.36	0.12	0.61	0.63
Boot_Space -	0.04	0.15	0.10	0.00	0.28	0.14	0.39	0.27	-0.03	0.02	-0.14	-0.00	0.30	0.21	0.26	0.19	0.18	0.06	0.36	1.00	-0.00	0.28	0.28
Minimum_Turning_Radius -	-0.01	0.01	-0.01	0.00	0.02	0.19	0.07	0.02	0.02	-0.00	-0.00	-0.00	0.07	-0.02	0.00	0.00	0.00	0.27	0.12	-0.00	1.00	0.11	-0.03
Gross_Vehicle_Weight -	0.32	0.55	0.39	0.05	0.65	0.40	0.59	0.55	-0.02	-0.02	-0.38	-0.06	0.73	0.40	0.23	0.40	0.47	0.31	0.61	0.28	0.11	1.00	0.46
Number_of_Airbags -	0.33	0.51	0.44	0.12	0.61	-0.07	0.64	0.58	-0.19	-0.02	-0.27	0.00	0.54	0.61	0.07	0.47	0.50	-0.08	0.63	0.28	-0.03	0.46	1.00
	Ex-Showroom_Price	Displacement	Cylinders .	Valves_Per_Cylinder -	Fuel_Tank_Capacity .	Height -	Length -	Width -	Doors .	City_Mileage -	Highway_Mileage	Combined_ARIA_Mileage	Kerb_Weight	Gears	Ground_Clearance -	Front_Track ·	Rear_Track	Seating_Capacity .	Wheelbase .	Boot_Space	Minimum_Turning_Radius	Gross_Vehicle_Weight	Number_of_Airbags -

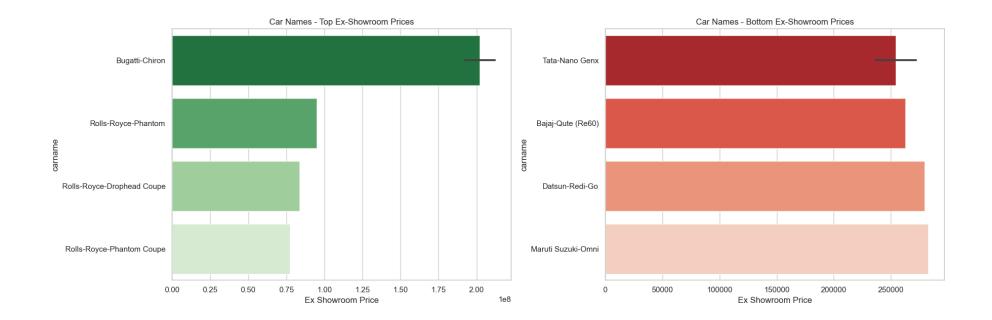
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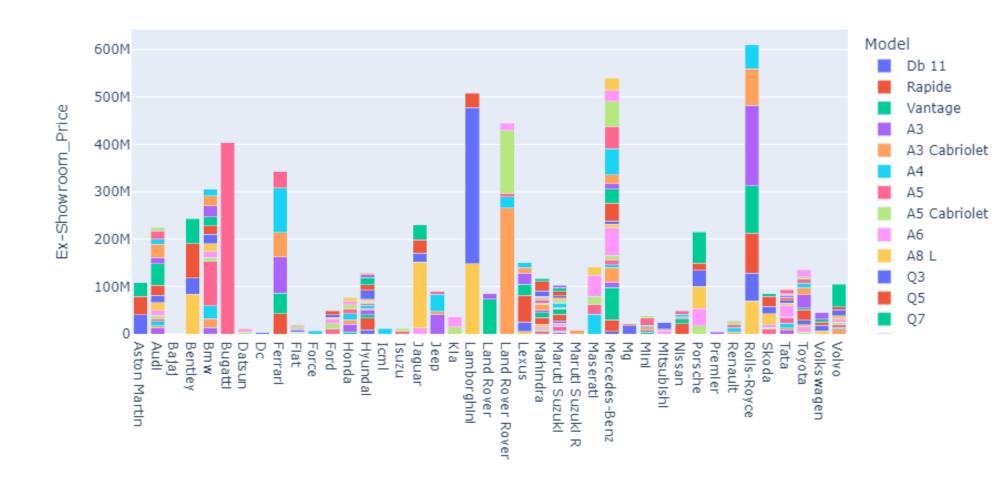


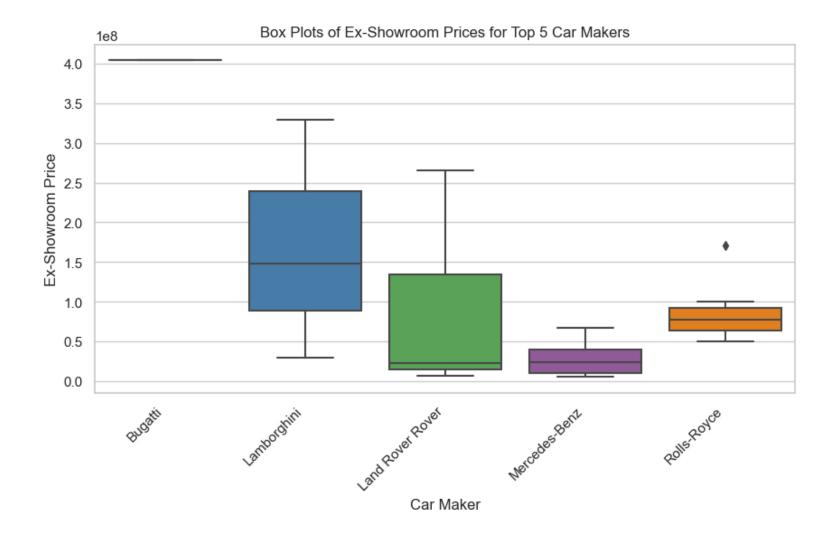




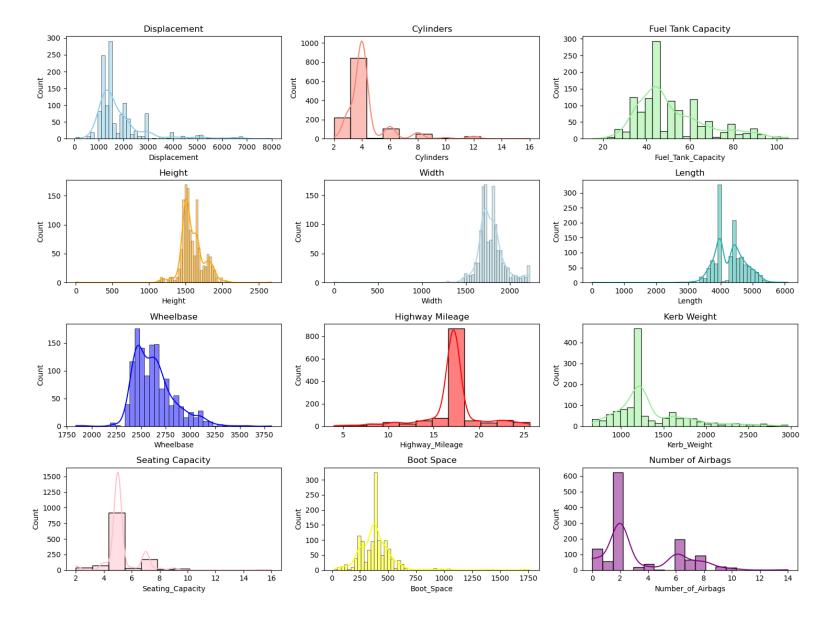


Total Ex-Showroom Price by Car Maker and Model

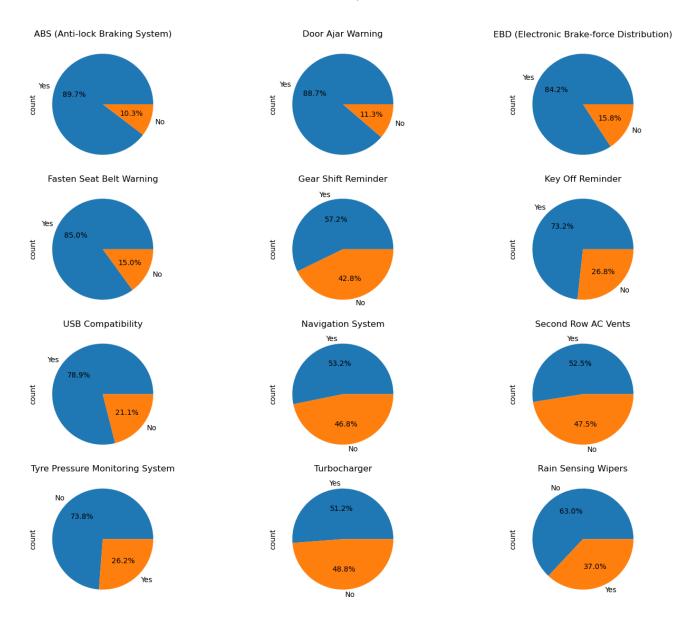




Histograms of Various Important Car Features



Pie Charts for Yes/No Features



Pie Charts for Extra Features

