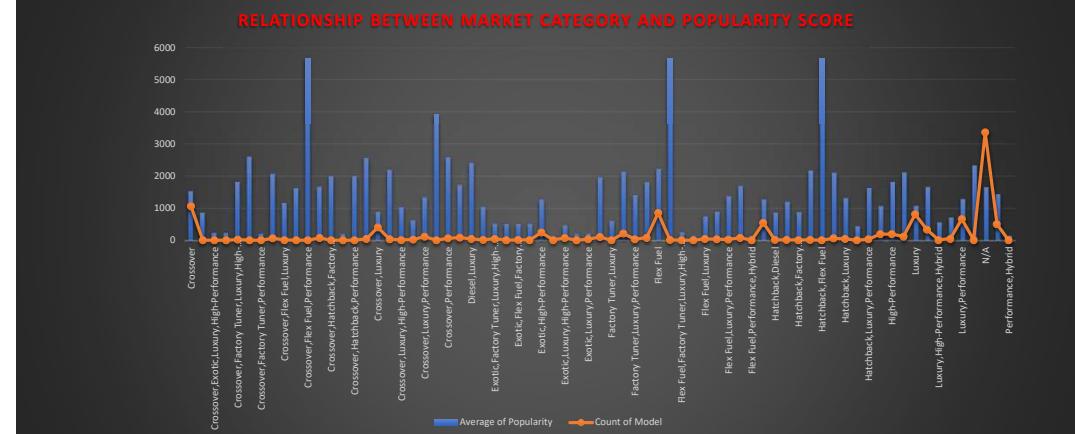
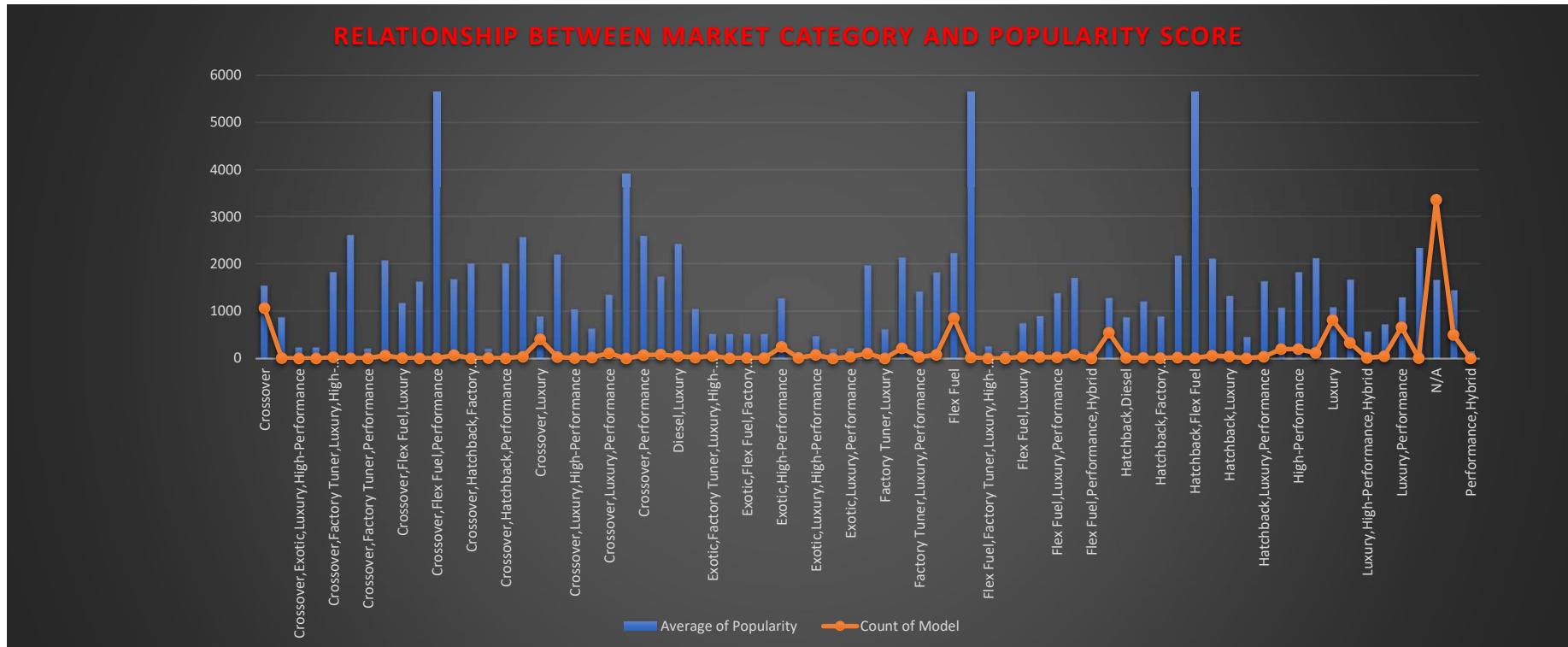


•Task 1.A: Create a pivot table that shows the number of car models in each market category and their corresponding popularity scores. •Task 1.B: Create a combo chart that visualizes the relationship between market category and popularity.

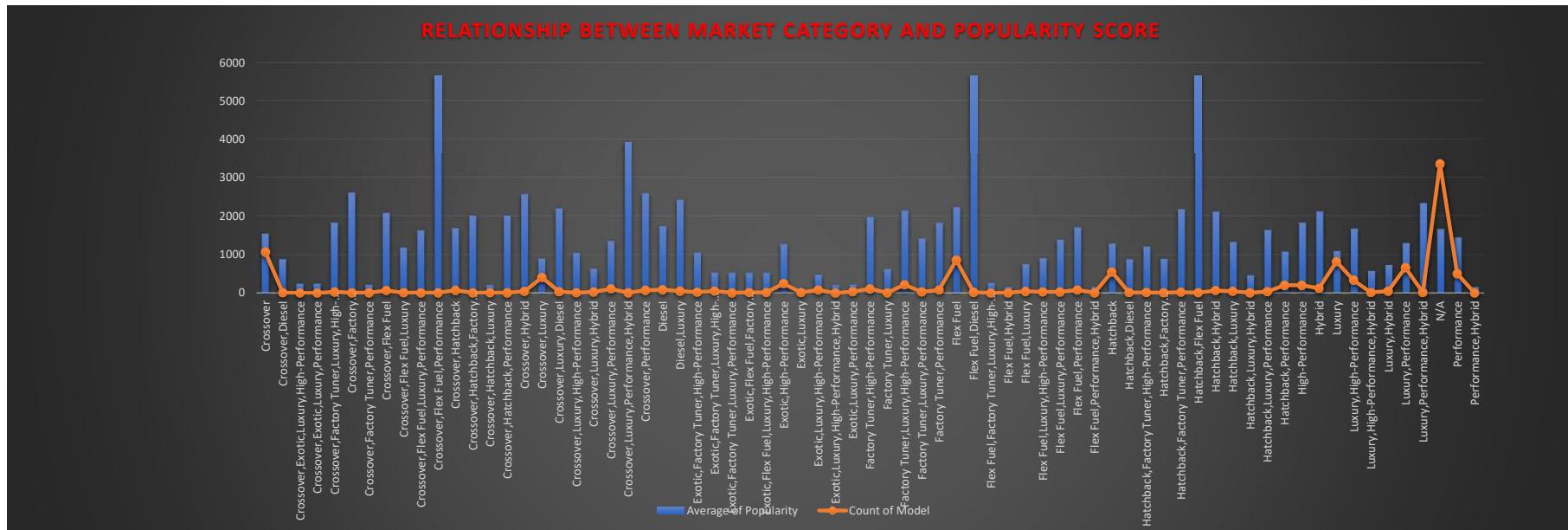
Market Category	Average of Popularity	Count of Model
Crossover	1539.475655	1068
Crossover,Diesel	873	7
Crossover,Exotic,Luxury,High-Performance	238	1
Crossover,Exotic,Luxury,Performance	238	1
Crossover,Factory Tuner,Luxury,High-Performance	1823.461538	26
Crossover,Factory Tuner,Luxury,Performance	2607.4	5
Crossover,Factory Tuner,Performance	210	4
Crossover,Flex Fuel	2073.75	64
Crossover,Flex Fuel,Luxury	1173.2	10
Crossover,Flex Fuel,Performance	1624	6
Crossover,Flex Fuel,Performance	5657	6
Crossover,Hatchback	1675.694444	72
Crossover,Hatchback,Factory Tuner,Performance	2009	6
Crossover,Hatchback,Luxury	204	7
Crossover,Hatchback,Performance	2009	6
Crossover,Hybrid	2563.380952	42
Crossover,Luxury	889.214285	406
Crossover,Luxury,Diesel	2195.848485	33
Crossover,Luxury,High-Performance	1037.222222	9
Crossover,Luxury,Hybrid	630.9166667	24
Crossover,Luxury,Performance	1349.089286	112
Crossover,Luxury,Performance,Hybrid	3916	2
Crossover,Performance	2585.956522	69
Diesel	1730.904762	84
Diesel,Luxury	2416.106383	47
Exotic,Factory Tuner,High-Performance	1046.380952	21
Exotic,Factory Tuner,Luxury,High-Performance	523.0196078	51
Exotic,Factory Tuner,Luxury,Performance	520	3
Exotic,Flex Fuel,Factory Tuner,Luxury,High-Performance	520	13
Exotic,Flex Fuel,Luxury,High-Performance	520	11
Exotic,High-Performance	1270.326531	245
Exotic,Luxury	112.6666667	12
Exotic,Luxury,High-Performance	473.025974	77
Exotic,Luxury,High-Performance,Hybrid	204	1
Exotic,Luxury,Performance	217.0277778	36
Factory Tuner,High-Performance	1966.442308	104
Factory Tuner,Luxury	617	2
Factory Tuner,Luxury,High-Performance	2133.367442	215
Factory Tuner,Luxury,Performance	1413.419355	31
Factory Tuner,Performance	1818.049383	81
Flex Fuel	2225.71345	855
Flex Fuel,Diesel	5657	16
Flex Fuel,Factory Tuner,Luxury,High-Performance	258	1
Flex Fuel,Hybrid	155	2
Flex Fuel,Luxury	746.5384615	39
Flex Fuel,Luxury,High-Performance	898.3125	32
Flex Fuel,Luxury,Performance	1380.071429	28
Flex Fuel,Performance	1702.358025	81
Flex Fuel,Performance,Hybrid	155	2
Hatchback	1279.113346	547
Hatchback,Diesel	873	14
Hatchback,Factory Tuner,High-Performance	1205.153846	13
Hatchback,Factory Tuner,Luxury,Performance	886.888889	9
Hatchback,Factory Tuner,Performance	2173.714286	21
Hatchback,Flex Fuel	5657	7
Hatchback,Hybrid	2111.15625	64
Hatchback,Luxury	1323.13333	45
Hatchback,Luxury,Hybrid	454	3
Hatchback,Luxury,Performance	1632.25	36
Hatchback,Performance	1073.661616	198
High-Performance	1823.378788	198
Hybrid	2116.586777	121
Luxury	1084.21227	815
Luxury,High-Performance	1668.017964	334
Luxury,High-Performance,Hybrid	568.8333333	12
Luxury,Hybrid	724.6875	48
Luxury,Performance	1293.062215	659
Luxury,Performance,Hybrid	2333.181818	11
N/A	1658.682629	3362
Performance	1443.234592	503
Performance,Hybrid	155	1
Grand Total	1557.205551	11097



•Task 2: Create a scatter chart that plots engine power on the x-axis and price on the y-axis. Add a trendline to the chart to visualize the relationship between these variables.



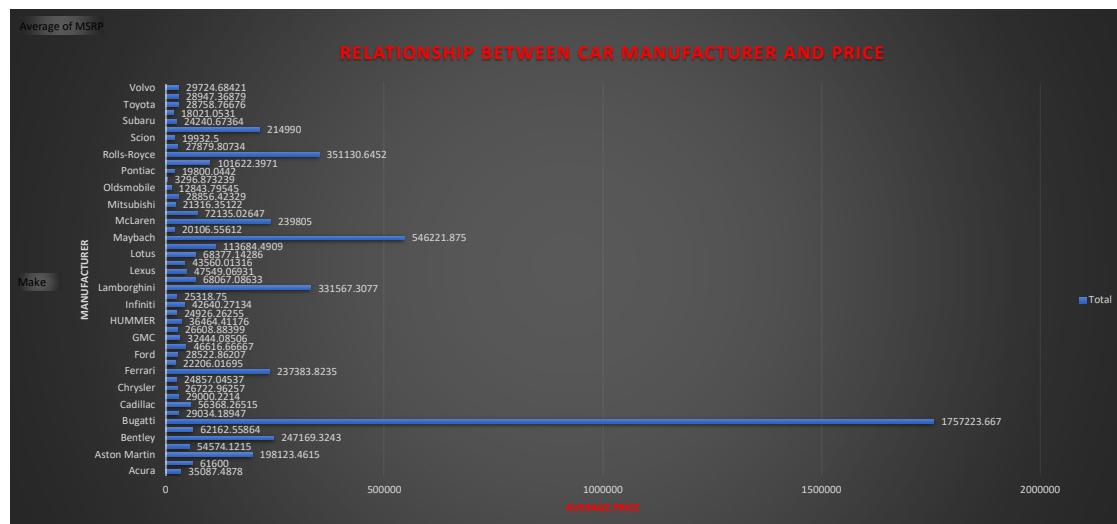
•Task 3: Use regression analysis to identify the variables that have the strongest relationship with a car's price. Then create a bar chart that shows the coefficient values for each variable to visualize their relative importance.



- Task 4.A: Create a pivot table that shows the average price of cars for each manufacturer.

Manufacturer	Average of MSRP
Acura	35087.4878
Alfa Romeo	61600
Aston Martin	198123.4615
Audi	54574.1215
Bentley	247169.3243
BMW	62162.55864
Bugatti	1757223.667
Buick	29034.18947
Cadillac	56368.26515
Chevrolet	29000.2214
Chrysler	26722.96257
Dodge	24857.04537
Ferrari	237383.8235
FIAT	22206.01695
Ford	28522.86207
Genesis	46616.66667
GMC	32444.08506
Honda	26608.88399
HUMMER	36464.41176
Hyundai	24926.26255
Infiniti	42640.27134
Kia	2518.75
Lamborghini	331567.3077
Land Rover	68067.08633
Lexus	47549.06931
Lincoln	43560.01316
Lotus	68377.14286
Maserati	113684.4909
Maybach	54621.875
Mazda	20106.55612
Mclaren	239805
Mercedes-Benz	72135.02647
Mitsubishi	21316.35122
Nissan	28856.42329
Oldsmobile	12843.79545
Plymouth	3296.873239
Pontiac	19800.0442
Porsche	101622.3971
Rolls-Royce	351130.6452
Saab	27879.80734
Scion	19932.5
Spyker	214990
Subaru	24240.67364
Suzuki	18021.0531
Toyota	28758.76676
Volkswagen	28947.36879
Volvo	29724.68421
Grand Total	41901.11895

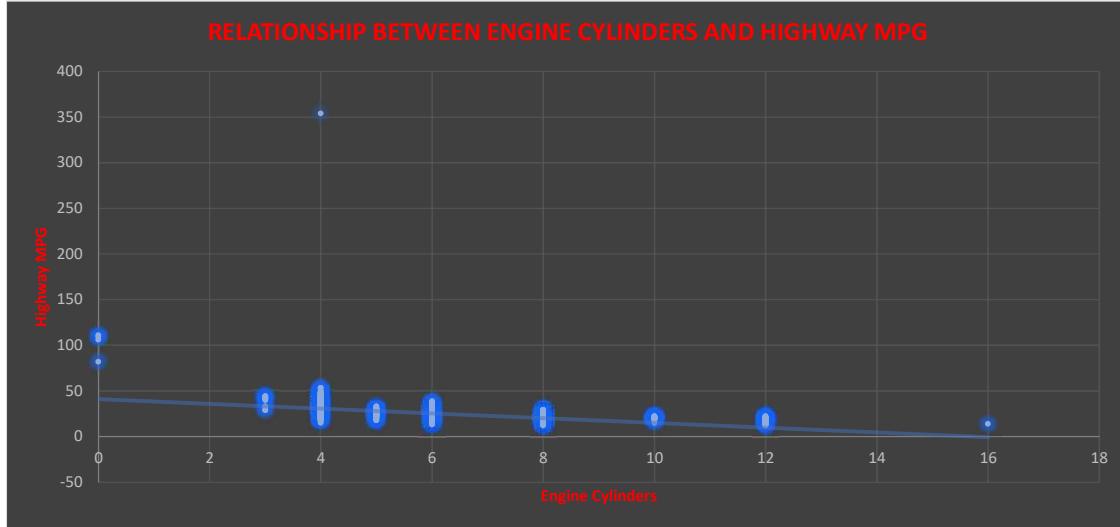
- Task 4.B: Create a bar chart or a horizontal stacked bar chart that visualizes the relationship between manufacturer and average price.



- Task 5.A: Create a scatter plot with the number of cylinders on the x-axis and highway MPG on the y-axis. Then create a trendline on the scatter plot to visually estimate the slope of the relationship and assess

- Task 5.B: Calculate the correlation coefficient between the number of cylinders and highway MPG to quantify the strength and direction of the

Correlation Coefficient -0.6147



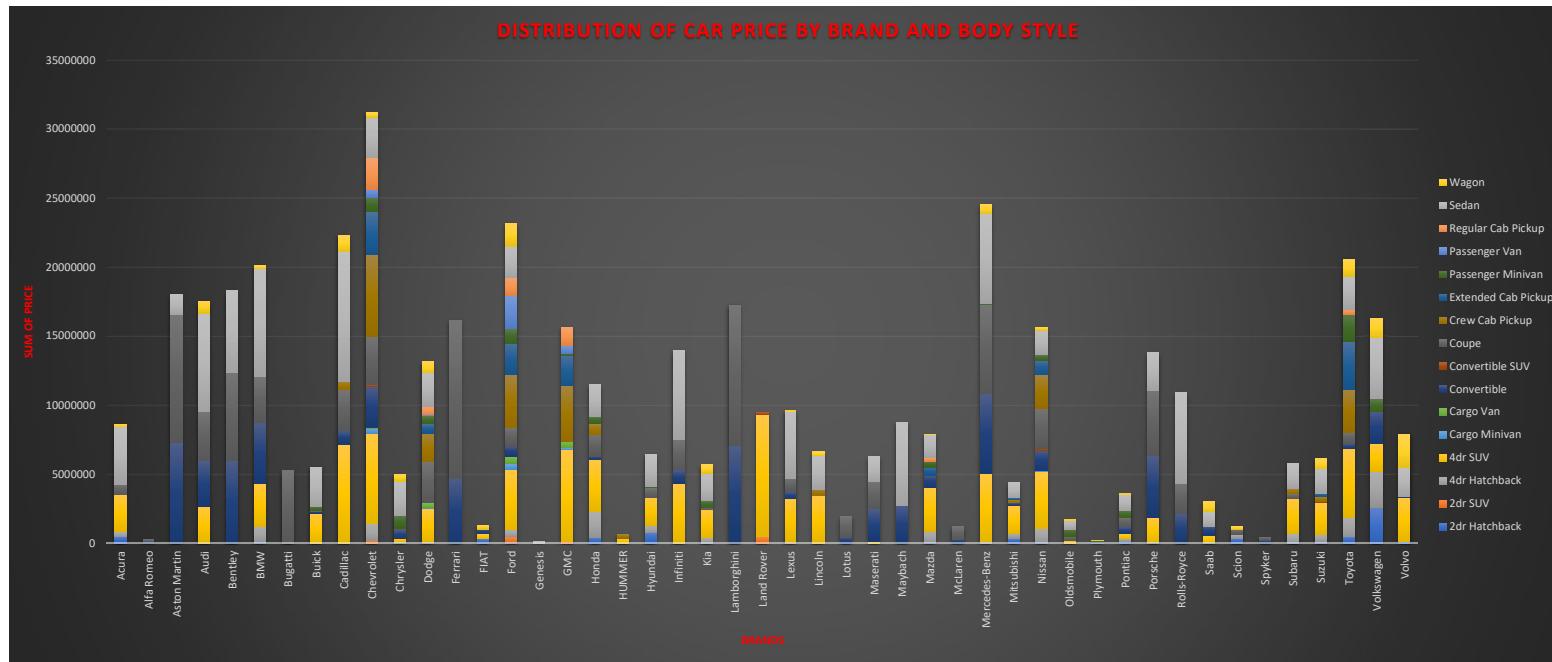
Task 1: How does the distribution of car prices vary by brand and body style?

- Hints: Stacked column chart to show the distribution of car prices by brand and body style. Use filters and slicers to make the chart interactive. Calculate the total MSRP for each brand and body style using SUMIF or Pivot Tables.

Brands	Sum of MSRP	Body styles	2dr Hatchback	2dr SUV	4dr Hatchback	4dr SUV	Cargo Minivan	Cargo Van	Convertible	Convertible SUV	Coupe	Crew Cab Pickup	Extended Cab Pickup	Passenger Minivan	Passenger Van	Regular Cab Pickup	Sedan	Wagon	Grand Total
Acura	480917			357440	2663505					793748						4134552	201360	8631522	
Alfa Romeo								129800		178200								308000	
Aston Martin									7321655		9258845							18029235	
Audi	4000				2674900					3291405						7144348	847350	17518293	
Bentley									6012870		6356760					5920900		18290530	
BMW	80097		1103100	3160950					4403171		3304051						7829700	259600	20140669
Bugatti										5271671								5271671	
Buick				2141770				179325		18534			330065			2838590	8212	5516496	
Cadillac				7182555				985607		2953574	599150					9416847	1184100	22321833	
Chevrolet	8000	193310	1209735	6509468	420150	74688	2953245	106300	3504525	5927617	3117951	1047240	599670	2260032	2942632	300675	31175238		
Chrysler	98805			250545				630105		114510			922295			2479859	501075	4997194	
Dodge	38000	12000	16000	2462875	60520	338497	6000		2973842	2072780	684682	557425	70708	653408	2409585	793055	13149377		
Ferrari							4723811		11418289									16142100	
FIAT	325315			369305			327965										287570	1310155	
Ford	24000	467873	480155	4370871	394000	556351	730007		1398144	3782518	2285584	1039010	2429898	1299240	2279348	1623565	23160564		
Genesis																139850		139850	
GMC		128319		6633919	142750	460085				4062482	2175866	150630	599670	1284328				15638049	
Honda	413200		1846010	3800589			252135		1588705	750215		553185			2264390		11468429		
HUMMER				377490						242405								619895	
Hyundai	789650		528880	1994390					685920			133075			2323987		6455902		
Infiniti				4340200			980050		2175750						6490009		13986009		
Kia			406960	2049645					142630			494650			1976360	601155	5671400		
Lamborghini							7064450		10177050								17241500		
Land Rover		476394		8839200				145731									9461325		
Lexus			94700	3152974		472065		1016472						4837596	31105	9604912			
Lincoln				3422570				17342	453260					2458245	269705	6621122			
Lotus						413260		1501300									1914560		
Maserati			155000			2342963		1972284						1782400		6252647			
Maybach						2762750								5976800		8739550			
Mazda	18000	12000	853180	3175515			870505	12000		580033	443130			265486	1618571	33350	7881770		
McLaren						280225		918800									1199025		
Mercedes-Benz			122800	4924810	28950		5753964	6473107			32500			6543743	646035	24525909			
Mitsubishi	370169		334850	2009807	2000	209893			240210	134360	2000		8000	1058563	4369852				
Nissan	14683		1023090	4149630	128620	1406552	131075	2937632	2422300	1026379	413320		19914	1763130	175000	15611325			
Oldsmobile				238150		2000		276015			492055			667161	20000	1695381			
Plymouth	40000		14000				85631		8000			31688		38759	16000		234078		
Pontiac	163505		162975	401550		473481		663715			541192			1156535	20855	3583808			
Porsche	28827			1815200			4504586	4758533						2713500		13820646			
Rolls-Royce						2141365		2204675						6539010		10885050			
Saab	12000		34586	541905			632628			330210				1066500	751280		3038899		
Scion	366325		282470				219990		209990					32500	184445	1195950			
Spyker																	429980		
Subaru	12000		678060	2539900				354476	365975					1833110	10000	5793521			
Suzuki	44496	12000	584387	2303493				120194		304131	259659				1797070	683707	6109137		
Toyota	473750		1397750	4957050		386668	811995	3131895	3491424	1952518				369446	2380826	1237955	20591277		
Volkswagen	2606540		2566055	2084955			2296916	6000			906430			4434595	1424825	16326316			
Volvo	157550			3131700		121600		6000						2072945	2416971	7906766			

Make
Lexus
Lincoln
Lotus
Maserati
Maybach
Mazda
McLaren
Mercedes-Benz

Vehicle Style
2dr Hatchback
2dr SUV
4dr Hatchback
4dr SUV
Cargo Minivan
Cargo Van
Convertible
Convertible SUV

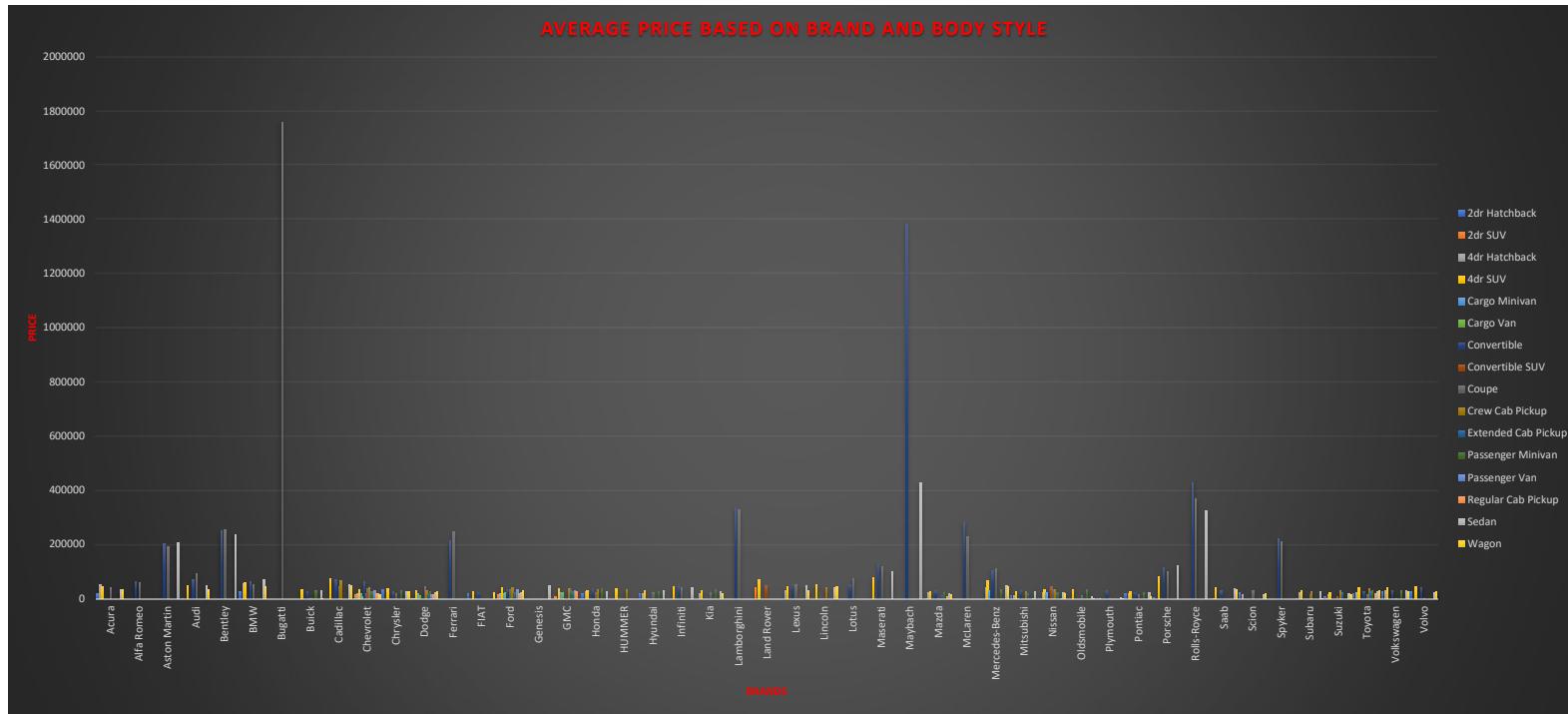


Task 2: Which car brands have the highest and lowest average MSRPs, and how does this vary by body style?

- Hints: Clustered column chart to compare the average MSRs across different car brands and body styles. Calculate the average MSRP for each brand and body style using AVERAGEIF or Pivot Tables.

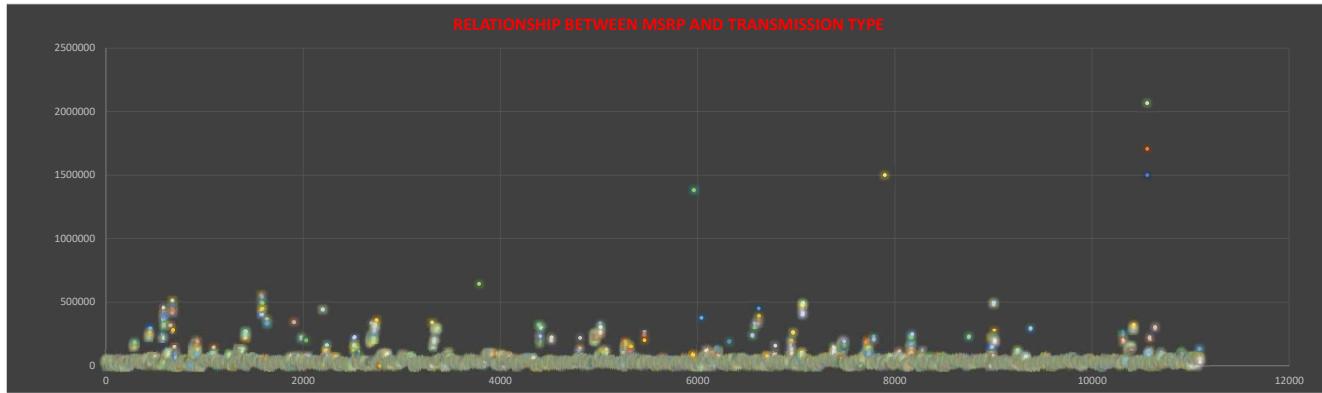
Average of MSRP Column Labels																			
Row Labels	2dr Hatchback	2dr SUV	4dr Hatchback	4dr SUV	Cargo Minivan	Cargo Van	Convertible	Convertible SUV	Coupe	Crew Cab Pickup	Extended Cab Pickup	Passenger Minivan	Passenger Van	Regular Cab Pickup	Sedan	Wagon	Grand Total		
Acura	17175.60714		51062.85714	42959.75806			64900		59400						33614.2439	33560	35087.6686		
Alfa Romeo					203379.3056		192892.6042								206962.1429	198123.4615	61600		
Aston Martin			2000	48634.54545		70029.89362	93586.57895			250536.25	254270.4				46391.87013	33894	54574.1215		
Audi																236836	247169.3243		
Bentley																			
BMW	26699			55155	58536.11111		63814.07246		52445.25397						71832.11009	43266.66667	62162.55864		
Bugatti									1757223.667								1757223.667		
Buick					33996.34921		25617.85714	2059.33333			30005.90909				29568.64583	2053	29034.18947		
Cadillac						72551.06061		70400.5		45439.6	66572.22222				51178.5163	47364	56368.26515		
Chevrolet	2000	13807.85714	18329.31818	33553.95876	20007.14286	8298.66667	62835	17716.66667	38939.16667	39255.74172	24170.16279	24934.28571	28555.71429	19824.84211	19882.64865	15825	29000.2214		
Chrysler	32935				35792.14286		24234.80769		19085			29751.45161			26103.77895	26372.36842	26722.96257		
Dodge	2000	2000	2000	31175.63291	20173.33333	12536.92593	2000		45058.21212	31405.75758	16301.95238	25337.5	14141.6	14850.18182	22519.48598	24782.96875	24857.04537		
Ferrari									214718.6818	248223.6739							237383.8235		
FIAT	19136.17647				24620.33333		23426.07143									22120.76923	22206.01695		
Ford	2000	16133.55172	18467.5	42027.60577	19700	20605.59259	34762.2381		34101.07317	41566.13187	23808.16667	22587.17391	32836.45946	17797.80822	23258.65306	30066.01852	28522.86207		
Genesis																46616.66667	46616.66667		
GMC	7128.833333			37479.76836	23791.66667	21908.80952				39062.32692	27895.71795	25105	28555.71429	25182.90196			32444.08506		
Honda	17216.66667		26371.57143	28575.85714		36019.28571		21763.08219	34100.68182		36879						26608.88399		
HUMMER				37749					34629.28571								36464.41176		
Hyundai	18363.95349		17629.33333	30218.0303					22126.45161			26615					24926.26255		
Infiniti				45686.31579		46669.04762		40291.66667				20375.71429					42640.27134		
Kia	19379.04762		31533						336402.381	328291.9355							23811.56627	18216.81818	
Lamborghini									48577								25318.75		
Land Rover	39699.5		71283.87097														68067.08633		
Lexus			31566.66667	45042.48571				52451.66667	50823.6						48864.60606	31105	47549.06931		
Lincoln			50331.91176						51657.5	75065						41665.16949	44950.83333	43560.01316	
Lotus									2167.75	41205.45455							68377.14286		
Maserati		77500						130164.6111	116016.7059								113684.4909		
Maybach								1381375								426914.2857	546221.875		
Mazda	2000	2000	20080.26829	27141.15385				28080.80645	2000		11600.66	23322.63158		9154.689655	19738.67073	16675	20106.55612		
McLaren								280225	229700								239805		
Mercedes-Benz			40933.33333	68400.13889	28950		104617.5273	109713.678			32500				48833.90299	43069	72135.02647		
Mitsubishi	12764.44828		12878.84615	26101.38961	2000		29984.71429		26690	19194.28571	2000				2000	24058.25	21316.35122		
Nissan	2097.571429		22241.08696	34294.46281	21436.66667		39070.88889	43691.66667	35393.15663	32733.78378	20527.58	22962.22222		2212.666667	22604.23077	17500	28856.42329		
Oldsmobile				34021.42857			2000	10615.96154				32803.66667		9139.191781	2000	12843.79545			
Plymouth	2000		2000				28543.66667	2000				2112.533333			2768.5	2000	3296.873239		
Pontiac	18167.22222		18108.33333	25096.875			22546.71429	16188.17073			20815.07692				20652.41071	6951.666667	19800.0442		
Porsche	5765.4			82509.09091		115502.2051	99136.10417								123340.9091		101622.3971		
Rolls-Royce							428273	367445.83333							326950.5		351130.6452		
Saab	2000		2034.470588	41685			28755.81818								36775.86207	34149.09091	27879.80734		
Scion	20351.38889		15692.77778						27517.5						16250	18444.5	19932.5		
Spyker							219990	209990									214990		
Subaru	2000		21189.375	28538.20225				16112.54545	24398.33333						26187.28571	2000	24240.67364		
Suzuki	7416	2000	16696.77143	21132.9633			7512.125		27648.27273	21638.25					17970.7	15538.79545	18021.0531		
Toyota	18950		22186.50794	40631.55738			25777.86667	15615.28846	36845.82353	26251.30827	30038.73846		17592.66667	24800.27083	31742.4359	28758.76676			
Volkswagen	24134.62963		28198.40659	41699.1			27673.68675	2000			29239.67742				30795.79861	26385.64815	28947.36879		
Volvo	26258.33333			45386.95652		40533.33333			2000						22289.73118	26271.42391	29724.68421		
Grand Total	16063.15159	14306.54945	22061.31925	40736.35037	20292.93103	17019.29762	88216.79217	17975	78292.5338	37183.11145	23041.77219	26152.10417	30578.06612	17854.64928	40174.94694	26084.29084	41901.11895		

Make
Acura
Alfa Romeo
Aston Martin
Audi
Bentley
BMW
Bugatti
Buick
Vehicle Style
2dr Hatchback
2dr SUV
4dr Hatchback
4dr SUV
Cargo Minivan
Cargo Van
Convertible
Convertible SUV



Task 3: How do the different feature such as transmission type affect the MSRP, and how does this vary by body style?

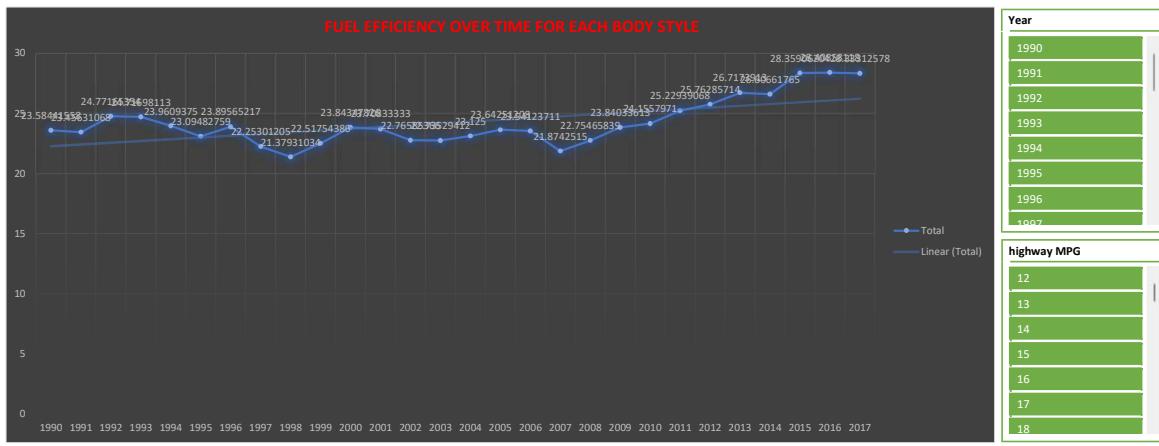
- Hints: Scatter plot chart to visualize the relationship between MSRP and transmission type, with different symbols for each body style. Calculate the average MSRP for each combination of transmission type and body style using AVERAGEIFS or Pivot Tables.



Task 4: How does the fuel efficiency of cars vary across different body styles and model years?

- Hints: Line chart to show the trend of fuel efficiency (MPG) over time for each body style. Calculate the average MPG for each combination of body style and model year using AVERAGEIFS or Pivot Tables.

Row Labels	Average of highway MPG
1990	23.58441558
1991	23.45631068
1992	24.77165354
1993	24.71698113
1994	23.9609375
1995	23.09482759
1996	23.89565217
1997	22.25301205
1998	21.37931034
1999	22.51754386
2000	23.84347826
2001	23.70833333
2002	22.76585366
2003	22.73529412
2004	23.125
2005	23.64251208
2006	23.54123711
2007	21.8742515
2008	22.75465839
2009	23.84033613
2010	24.1557971
2011	25.22939068
2012	25.76285714
2013	26.7173913
2014	26.60661765
2015	28.35906204
2016	28.40858118
2017	28.33312578
Grand Total	26.27340723

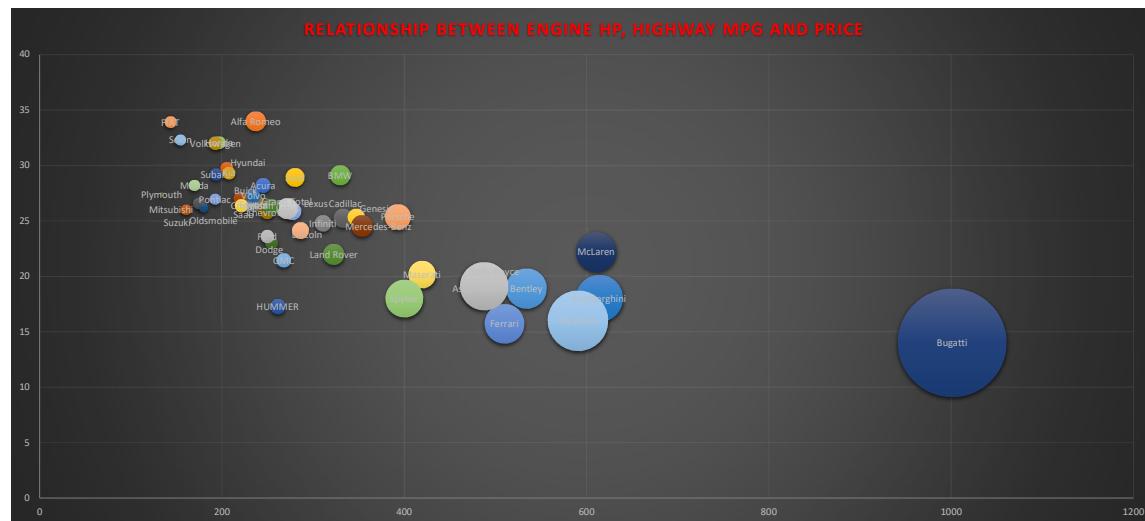


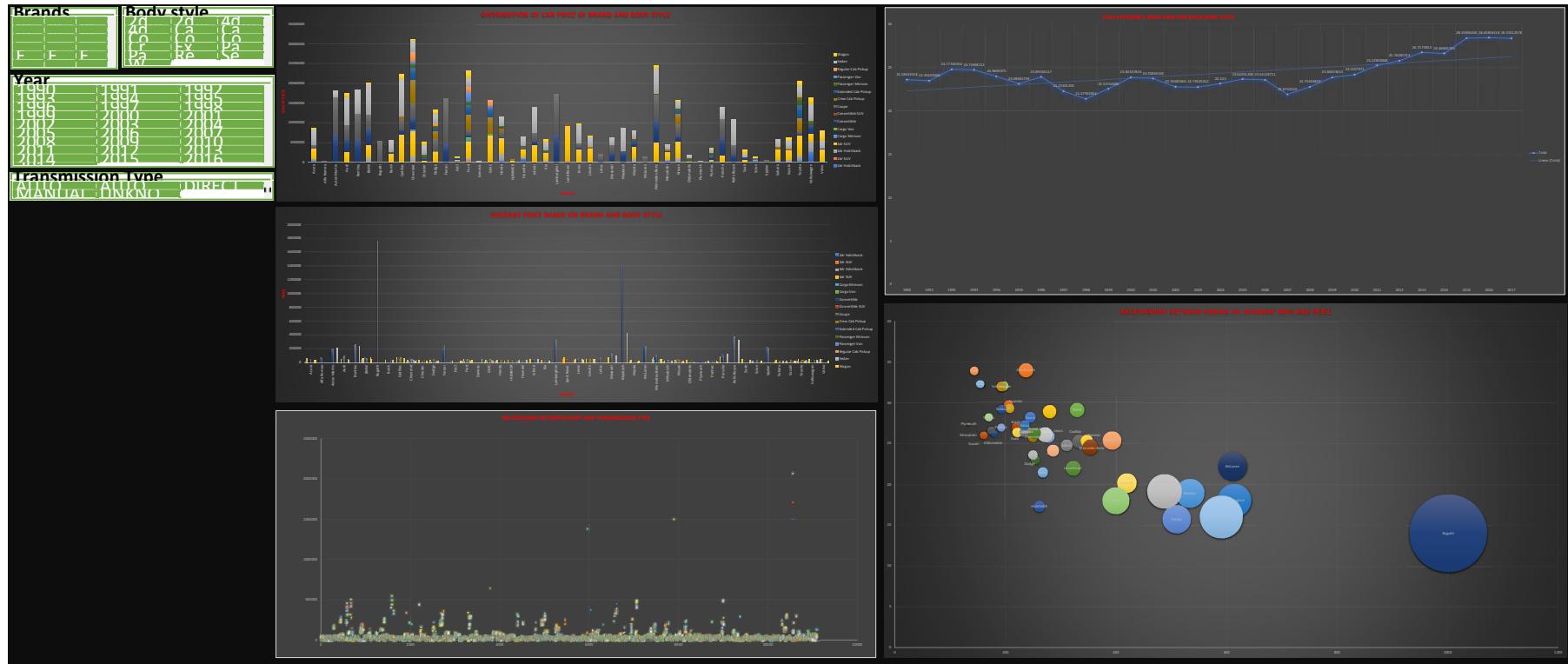
Row Labels	2dr Hatchback	2dr SUV	4dr Hatchback	4dr SUV	Cargo Minivan	Cargo Van	Convertible	Convertible SUV Coupe	Crew Cab Pickup	Extended Cab Pickup	Passenger Minivan	Passenger Van	Regular Cab Pickup	Sedan	Wagon	Grand Total
1990	30.4	20	31	20	20	23.5	24.27272727	22	19.5	22	23.65384615	24.3	23.58441558			
1991	29.83333333	16.25		20		22.625	26.25	15.83333333	18	17.28571429	24.11111111	22.72727273	23.45631068			
1992	29.39285714	18.28571429	28.16666667	21		24.375	27.63636364	15.4		18.42857143	24.175	24.77165354				
1993	28.25925926	18.85714286	28.125	21		23.81818182	26	27.33333333	16.90909091	17.625	25.2	24.41666667	24.71698113			
1994	27.05263158	17.625	27.14285714	20	21	19	26	26	20.28571429	21	16.33333333	21	24.90625	23.63636364	23.9609375	
1995	28.6	16	27.66666667		21.5	18.33333333	24.5	26	25.60714286	20	20.1	15	20.375	23.88461538	23.88888889	
1996	28.8	20	26.125	21.25	23	14.8	23.8	24		20	20.77777778	15	22.2	25.83333333	24.57142857	
1997	26.25	22	26.66666667	19.7	21	17.2	25.28571429	20.66666667	26.92857143	18.35714286	20.55555556	17	18.78571429	25.42105263	24.4	
1998	23.2	26	24.5	22.11111111		17.2	23.66666667	21.5	25.64285714	18.625	23.33333333	17	19.15151515	26.1	21.37931034	
1999	30.33333333	18.75		18.3		16.66666667	26.5		18.42307692	22.33333333	18.42857143	26.875	22.51754386			
2000	29.72727273	18.75		17.73333333		16.4	25.28571429	24.16666667	20.5	23.16666667	14.5	20.83333333	26.86363636	31	23.84347826	
2001	29	18.66666667		18.72727273	22	15.8	23.4375	20.29411765		19	21.2	15	23	27.37735849	30.625	
2002	25.25	19	19.79411765	21	14.6	24.07142857	23.28571429	23.6	17	20.22222222	21.6875	15	22.06666667	26.14	28.88888889	
2003	29.75	18.75		19.22857143	20.66666667	15	20.23076923	23.4	23.87878788	18	20.77777778	22.2972973	24.08333333	27.05769231	24	
2004	29.71428571	18.75	34	19.04081633	19.6	20.1	25.26666667	22	17.75	22.2			18.46153846	26.42424242	22.8	
2005	30.33333333	18.66666667	30.6	19.33333333	20.66666667	20.72727273		26		21.95454545	18	25.75409836	24.27777778	23.64251208		
2006	27.25		28.75	20.19444444	23	22.85714286	24.25925926	19.38461538		18	24.75	23.54123711				
2007	25.09090909		27.45454545	20.46296296	22.66666667		22.76	25.2	18.03333333	18.38983051	22.75	19.57692308	25.30769231	24.8	21.8742515	
2008	26.42857143		28.33333333	20.765625	23	23.19047619	24.78947368	18.43181818	19.22222222	23	18	26.52173913	24.71428571	22.75465839		
2009	29		31	22.59139785		23.55	24.22580645	19.02941176	19.95454545	21	23.85714286	21.85714286	26.54545455	26.84848485	23.84033613	
2010	27.125		29.5	23.25454545		24.26315789	23.83333333	18.94594595	21		21	26.12307692	28.47826087	24.1557971		
2011	27.83333333		28.93103444	23.58333333		23.94444444	22.73913043	21.1	21.9	25		27	20.01298701	28.73333333	25.22939068	
2012	30.21428571		31.76190476	22.70454545		16.66666667	23.57692308	22	22.37142857	21.43333333	23.0625	25	15.33333333	24.125	27.60493827	
2013	31.90909091		31.42	23.58928571		16.66666667	23.18181818	22	25.407619	21.31818182	28	15.33333333	29.234375	29.39473684	26.7173913	
2014	34.75		38.80952381	23.80833333		16.85714286	26.15789474	22	23.16883117	18.71428571	17.4	26	16.375	29.63106796	29.25	
2015	35.02985075	30	38.49635036	25.76350093	27.5	17	27.22377622	26.16931217	22.12121212	21.65934066	25.65384615	18.14285714	22.74285714	32.07540395	30.984375	
2016	34.875	30	38.76271186	26.1965812	27.11111111	16	27.51666667	27.10989011	22.37593985	21.78409091	25.5	17.71428571	22.52941176	31.97800338	29.98245614	
2017	33.06666667	29	38.03478261	25.70974576	26.5	27.80263158	28	27.71724138	21.96153846	20.98684211	26.05555556	19	22.52941176	32.66139955	30.86486486	
Grand Total	30.799511	19.52742753	35.38654147	24.44682605	23.72413793	16.54761905	25.48043185	23.71428571	25.70017331	21.1908397	20.22613065	23.61458333	17.25619835	20.85507246	29.74786325	27.83123878

Task 5: How does the car's horsepower, MPG, and price vary across different Brands?

• Hints: Bubble chart to visualize the relationship between horsepower, MPG, and price across different car brands. Assign different colors to each brand and label the bubbles with the car model name. Calculate the average horsepower, MPG, and MSRP for each car brand using AVERAGEIFS or Pivot Ta

Brands	Average Engine HP	Average Highway MPG	Average MSRP
Acura	245	28	35087
Alfa Romeo	237	34	61600
Aston Martin	484	19	198123
Audi	280	29	54574
Bentley	534	19	247169
BMW	330	29	62163
Bugatti	1001	14	1757224
Buick	220	27	29034
Cadillac	333	25	56368
Chevrolet	250	26	29000
Chrysler	229	26	26723
Dodge	254	23	24857
Ferrari	510	16	237384
FIAT	144	34	22206
Ford	250	24	28523
Genesis	347	25	46617
GMC	268	21	32444
Honda	197	32	26609
HUMMER	261	17	36464
Hyundai	205	30	24926
Infiniti	311	25	42640
Kia	208	29	25219
Lamborghini	614	18	331567
Land Rover	323	22	68067
Lexus	277	26	47549
Lincoln	286	24	43560
Lotus	272	26	68377
Maserati	420	20	113684
Maybach	591	16	546222
Mazda	170	28	20107
McLaren	610	22	239805
Mercedes-Benz	354	25	72135
Mitsubishi	174	27	21316
Nissan	241	26	28856
Oldsmobile	180	26	12844
Plymouth	134	27	3297
Pontiac	192	27	19800
Porsche	393	25	101622
Rolls-Royce	488	19	351131
Saab	221	26	27880
Scion	154	32	19933
Spyker	400	18	214990
Subaru	193	29	24241
Suzuki	161	26	18021
Toyota	234	26	28759
Volkswagen	193	32	28947
Volvo	235	27	29725
Grand Total	254	26	41901





Project 07 - Impact of Car Features		
Data Cleaning		
Before		After
Total Rows - 11915		Removed duplicates & Blank cells
Duplicates - 715		Final count of Total Rows - 11098
Blank Cells - As described in the previous table		
FINAL SUMMARY		
Sr No	Question	Answer
1	Project Description	<p>The automotive industry has been rapidly evolving over the past few decades, with a growing focus on fuel efficiency, environmental sustainability, and technological innovation. With increasing competition among manufacturers and a changing consumer landscape, it has become more important than ever to understand the factors that drive consumer demand for cars.</p> <p>In recent years, there has been a growing trend towards electric and hybrid vehicles and increased interest in alternative fuel sources such as hydrogen and natural gas. At the same time, traditional gasoline-powered cars remain dominant in the market, with varying fuel types and grades available to consumers.</p> <p>For the given dataset, as a Data Analyst, the client has asked How can a car manufacturer optimize pricing and product development decisions to maximize profitability while meeting consumer demand?</p> <p>This problem could be approached by analyzing the relationship between a car's features, market category, and pricing, and identifying which features and categories are most popular among consumers and most profitable for the manufacturer. By using data analysis techniques such as regression analysis and market segmentation, the manufacturer could develop a pricing strategy that balances consumer demand with profitability, and identify which product features to focus on in future product development efforts. This could help the manufacturer improve its competitiveness in the market and increase its profitability over time.</p>
2	Approach	<ol style="list-style-type: none"> Understood the dataset provided Have done the data cleaning as described in the data cleaning table Used appropriate functions and formulas to get the required answers for each questions
3	Tech-Stack Used	Microsoft Office 2019
4	Insights	In this project I have used different excel functions, formulas, charts to extract the answers for all the questions which has helped me to improve the way of thinking while working on excel and selecting appropriate functions according to the questions.
5	Result	This project has helped me to improve my skills on advanced excel functions, pivot tables and charts