INNOMATICS
RESEARCH LABS

About me:

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- Qualification - B.tech(ECE) 2021

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WEB SCRAPING

Presented by :Raja Avinash

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Why web scraping?

- Lead Generation for Marketing.
- Price Comparison & Competition Monitoring.
- Training and Testing Data for Machine Learning Projects
- Stock Marketing Odds Analysis

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Extracting the data

- Web pages contain large amount of data which can be extracted.
- We used python to extract the data from web page.
- Whole data including HTML code is extracted from web page.
- Then using certain libraries data is arranged in an order.

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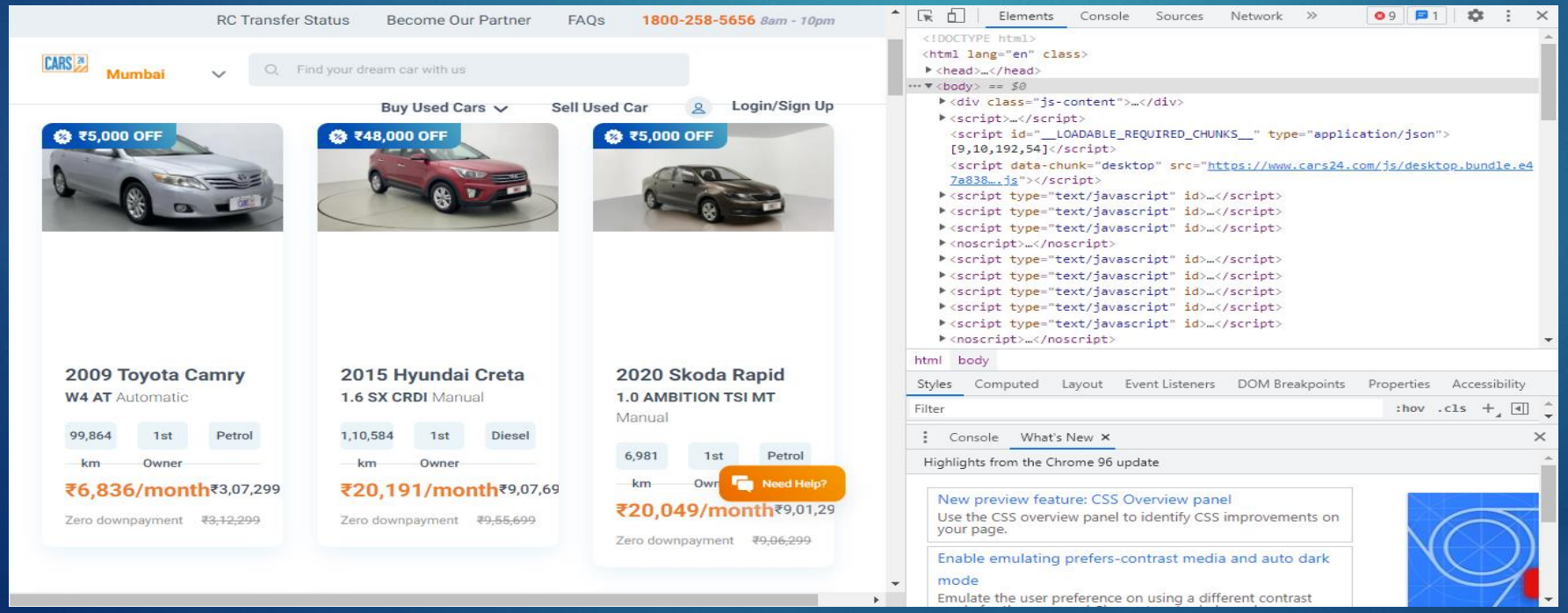
- Each element in webpage contain unique id.
- Using unique id’s the required information extracted.
- These is done by using the tool inspect
- Here we extracted data from **cars24 website**.



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Data Analysis

- **Then arranged data according to requirement in data frame.**

]:

	company	car_model	about_car	price	offer	previous_price	downpayment	EMI
0	2009 Toyota CamryW4 AT Automatic	W4 AT Automatic	99,864 km1st OwnerPetrol	₹307,299	₹5,000 OFF	₹312,299	Zero downpayment	₹6,836/month
1	2020 Skoda Rapid1.0 AMBITION TSI MT Manual	1.0 AMBITION TSI MT Manual	6,981 km1st OwnerPetrol	₹901,299	₹5,000 OFF	₹906,299	Zero downpayment	₹20,049/month
2	2017 Maruti DzireZXI AMT Automatic	ZXI AMT Automatic	92,719 km1st OwnerPetrol	₹717,899	₹38,000 OFF	₹755,899	Zero downpayment	₹15,969/month
3	2020 Hyundai VENUES MT 1.2 KAPPA Manual	S MT 1.2 KAPPA Manual	547 km1st OwnerPetrol	₹826,399	₹5,000 OFF	₹831,399	Zero downpayment	₹18,383/month
4	2018 Honda WR-V1.2 i-VTEC VX MT Manual	1.2 i-VTEC VX MT Manual	16,631 km1st OwnerPetrol	₹850,899	₹31,000 OFF	₹881,899	Zero downpayment	₹18,928/month
...	...	...	...	...	...	...	...	...
435	2019 Renault KwidRXT Opt Manual	RXT Opt Manual	4,523 km1st OwnerPetrol	₹381,799	₹29,000 OFF	₹410,799	Zero downpayment	₹8,493/month
436	2015 Hyundai EonERA PLUS Manual	ERA PLUS Manual	20,419 km1st OwnerPetrol	₹311,699	₹17,000 OFF	₹328,699	Zero downpayment	₹6,934/month
437	2015 Hyundai Grand i10ASTA 1.2 VTVT Manual	ASTA 1.2 VTVT Manual	80,058 km1st OwnerPetrol	₹387,099	₹19,000 OFF	₹406,099	Zero downpayment	₹8,611/month
438	2019 Maruti DzireVXI Manual	VXI Manual	19,015 km1st OwnerPetrol	₹653,799	₹16,000 OFF	₹669,799	Zero downpayment	₹14,543/month
439	2016 Maruti BalenoDELTA 1.2 K12 AT Automatic	DELTA 1.2 K12 AT Automatic	26,581 km1st OwnerPetrol	₹591,099	₹34,000 OFF	₹625,099	Zero downpayment	₹13,149/month

440 rows × 8 columns

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- Then the data in csv file is visually presented.
- After saving in csv file , the data is cleaned.
- Whole data is presented in data frame.
- Then the data is cleaned as required

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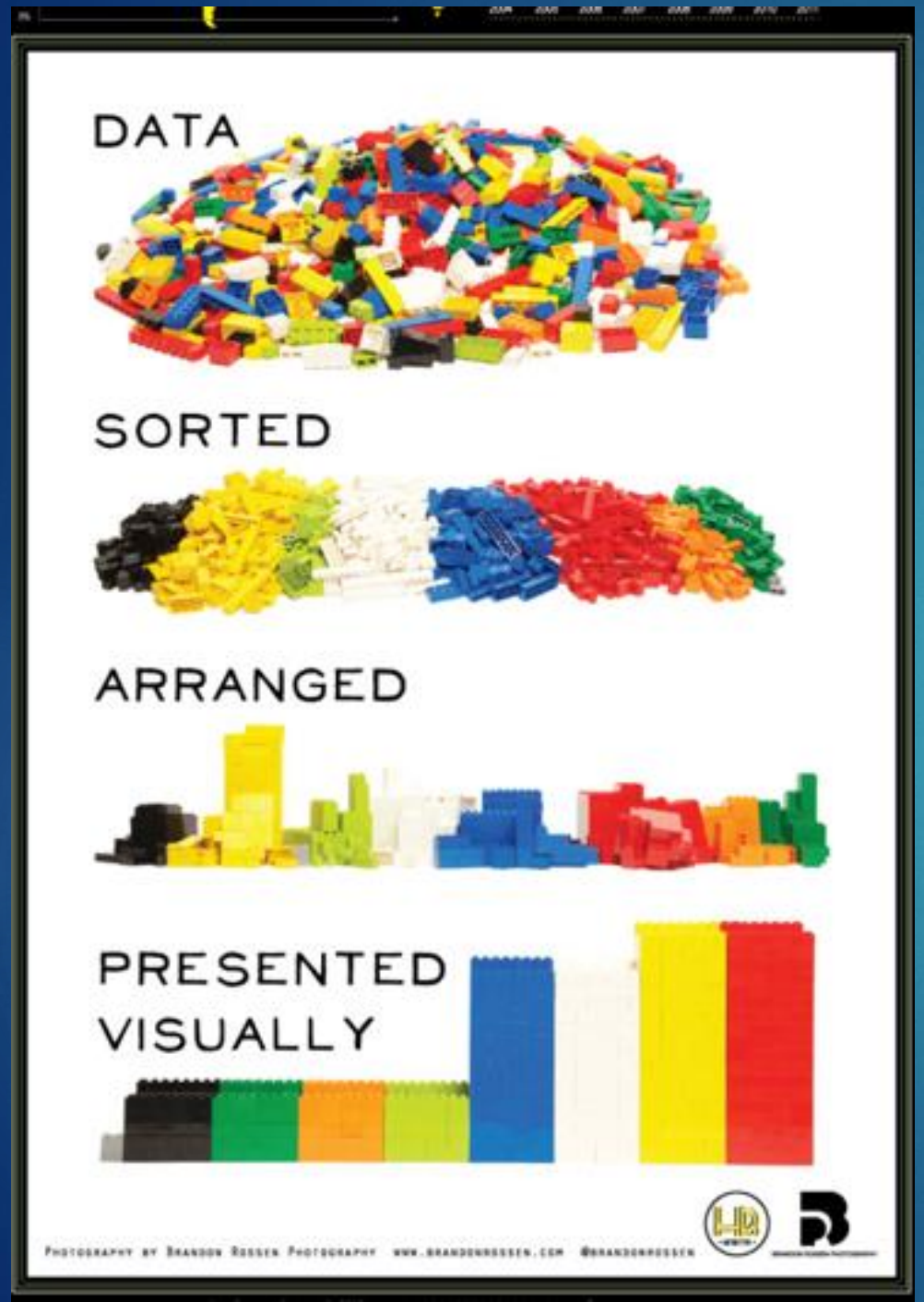

- Data is visually presented in different types

	car_model	price	offer	previous_price	downpayment	EMI_pre_month	year of model	Brand	fuel type	Owner	Kilometers	Manual/Automatic
0	CamryW4 Manual	307299	5000	312299	0	6836	2009	Toyota	Petrol	1st	99864	Automatic
1	RapidManual AMBITION TSI Manual	901299	5000	906299	0	20049	2020	Skoda	Petrol	1st	6981	Manual
2	DzireZXI Manual	717899	38000	755899	0	15969	2017	Maruti	Petrol	1st	92719	Automatic
3	VENUES Manual Manual KAPPA	826399	5000	831399	0	18383	2020	Hyundai	Petrol	1st	547	Manual
4	WR-VManual i-VTEC VX Manual	850899	31000	881899	0	18928	2018	Honda	Petrol	1st	16631	Manual
7	PoloTrendline Manual L Petrol	506499	41000	547499	0	11267	2018	Volkswagen	Petrol	1st	43686	Manual
8	Creta1.6 SX CRDI	907699	48000	955699	0	20191	2015	Hyundai	Diesel	1st	110584	Manual
9	VENUEManual TURBO GDI SX+ Manual	1081099	6000	1087099	0	24048	2019	Hyundai	Petrol	1st	26448	Automatic
10	i20 ActiveManual S	582699	23000	605699	0	12962	2017	Hyundai	Petrol	1st	57900	Manual

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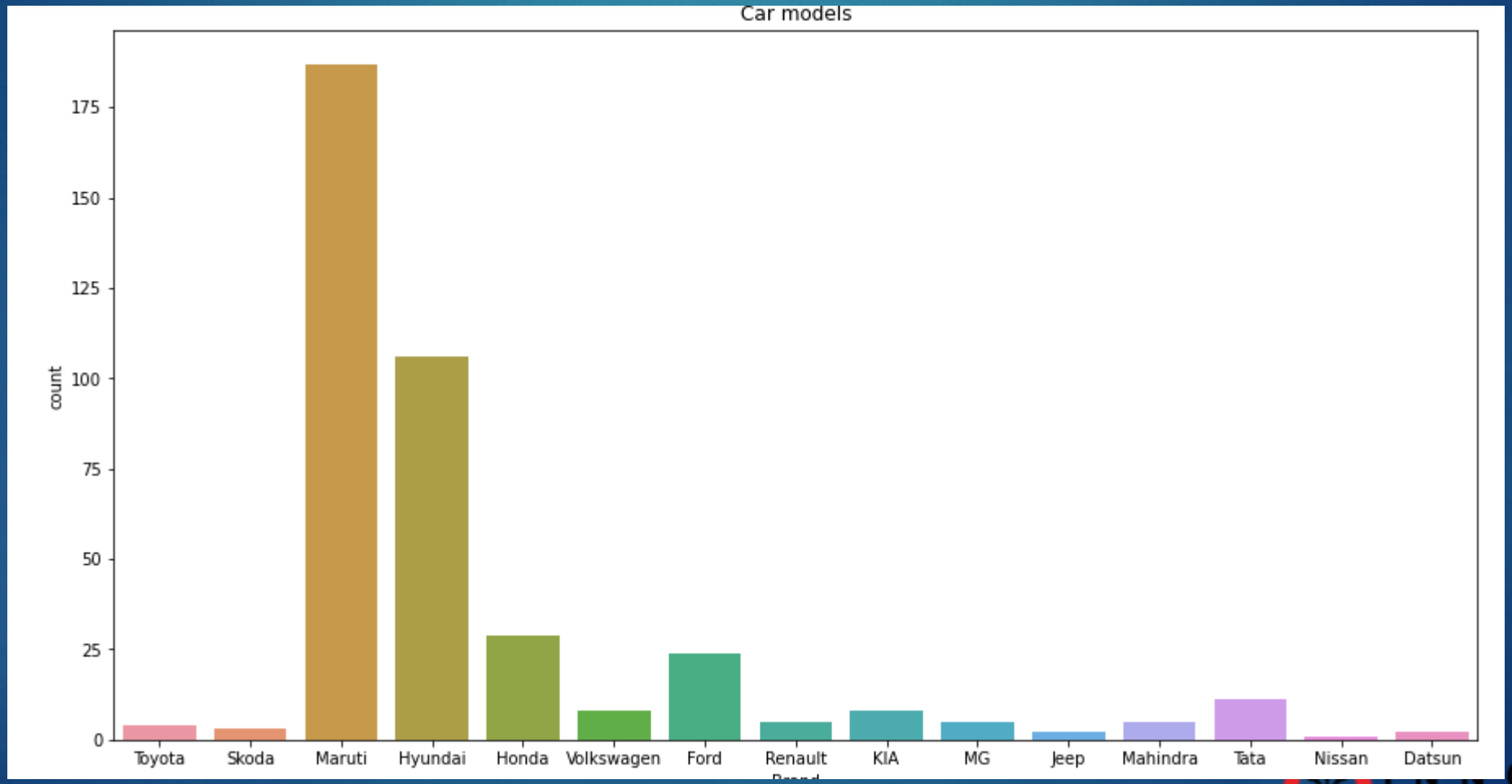
VISUALISATION

Count plot



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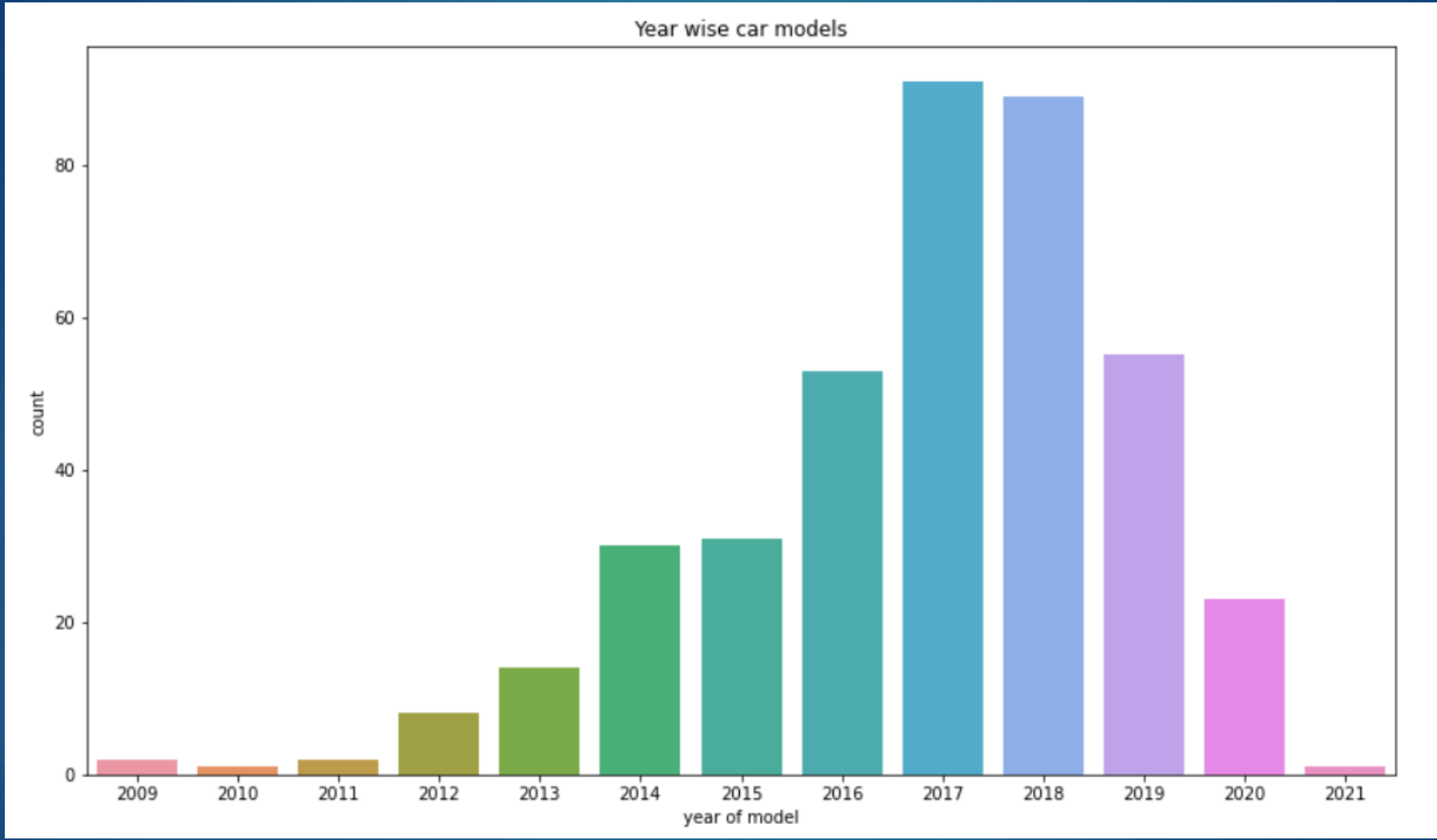
Count plot on Year-wise Car models



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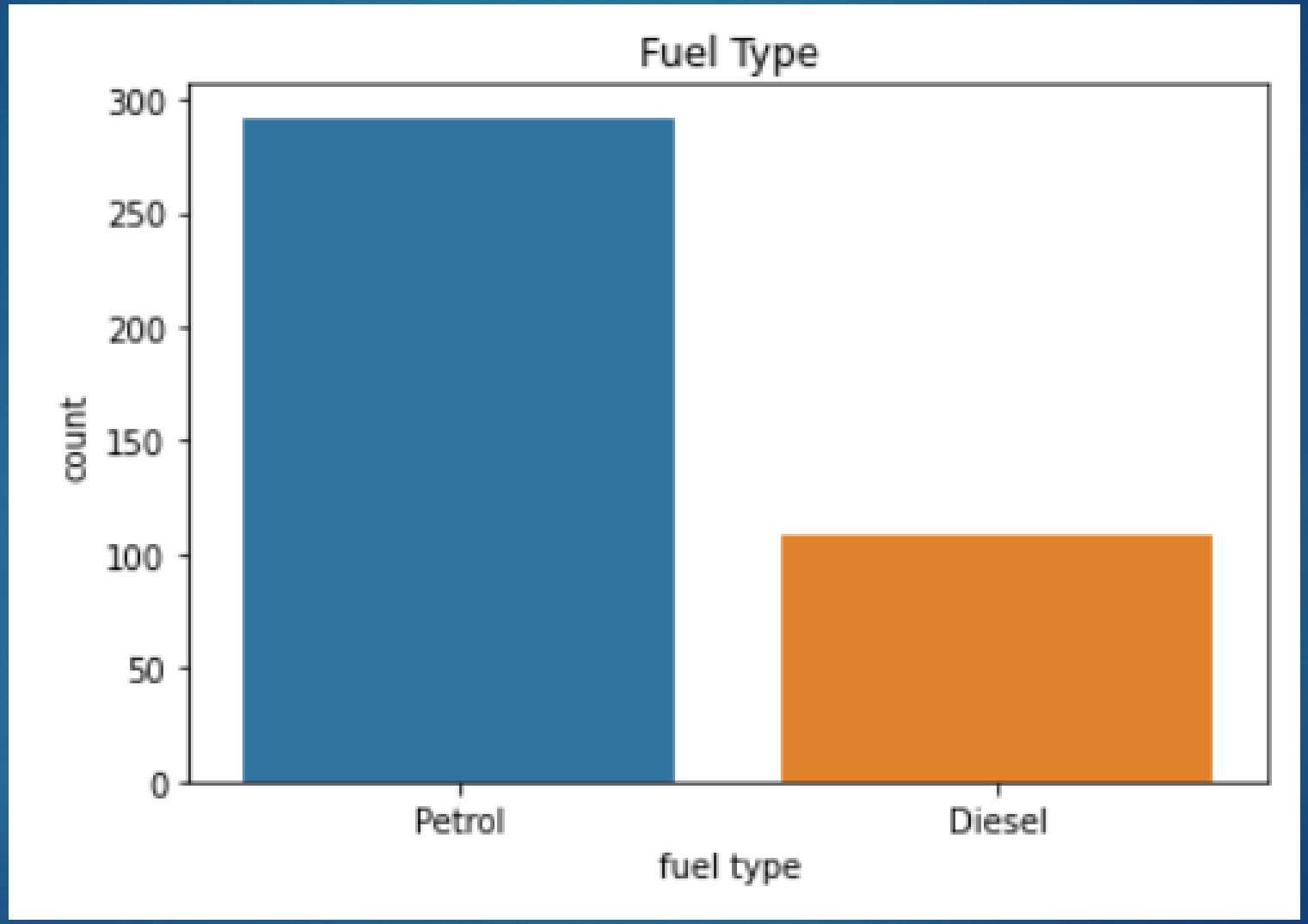

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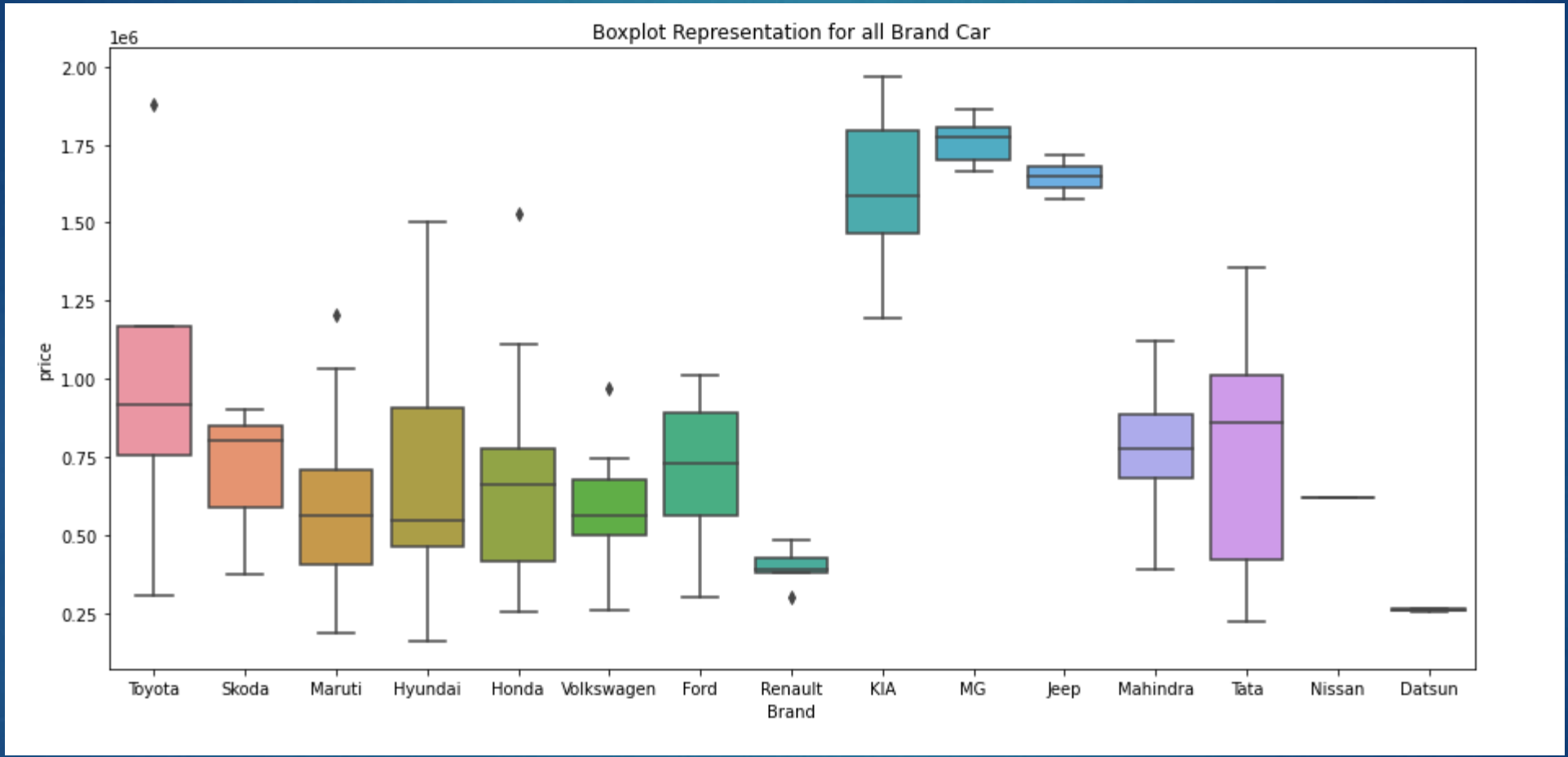
Box plot



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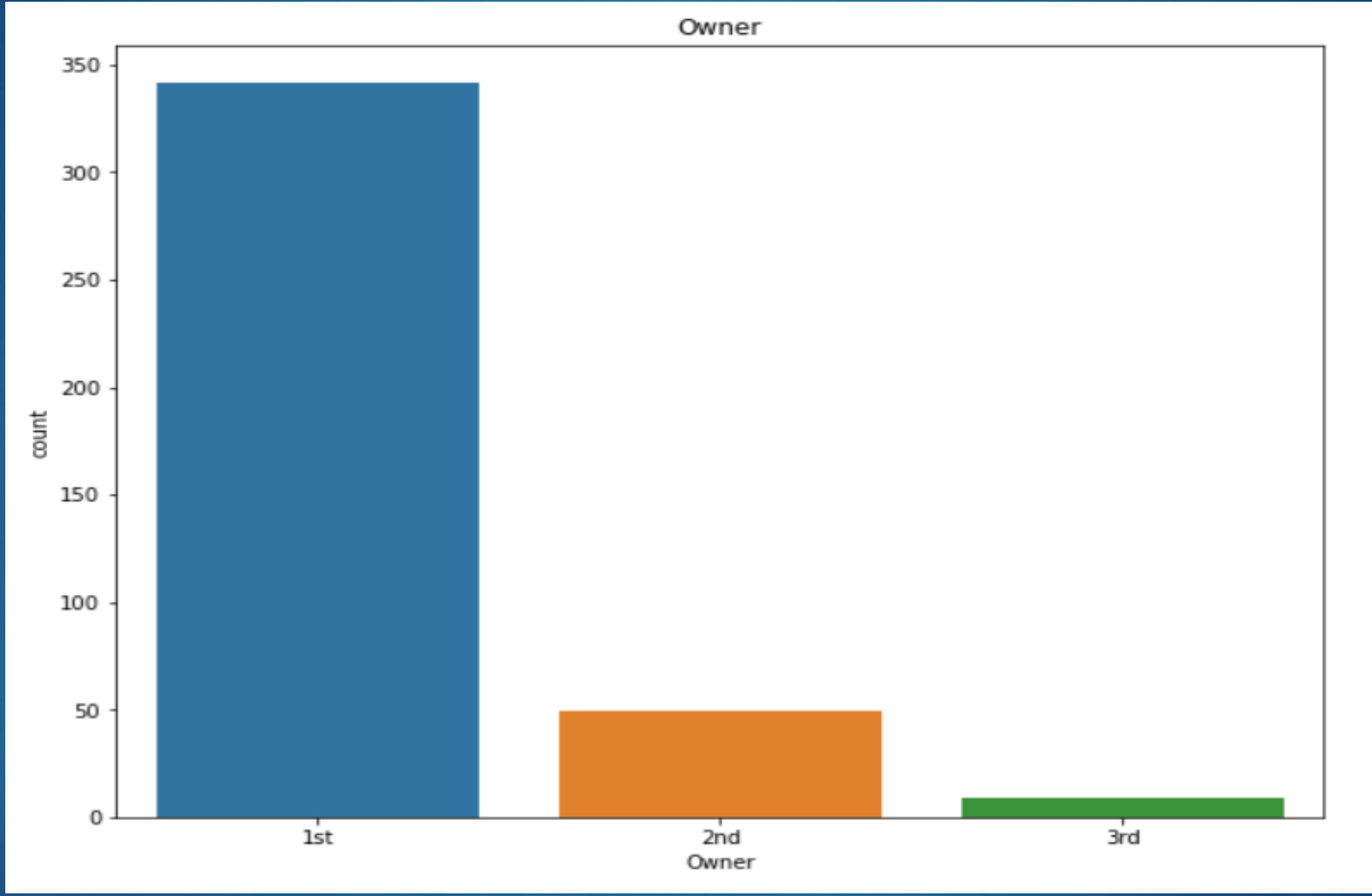
Ownership



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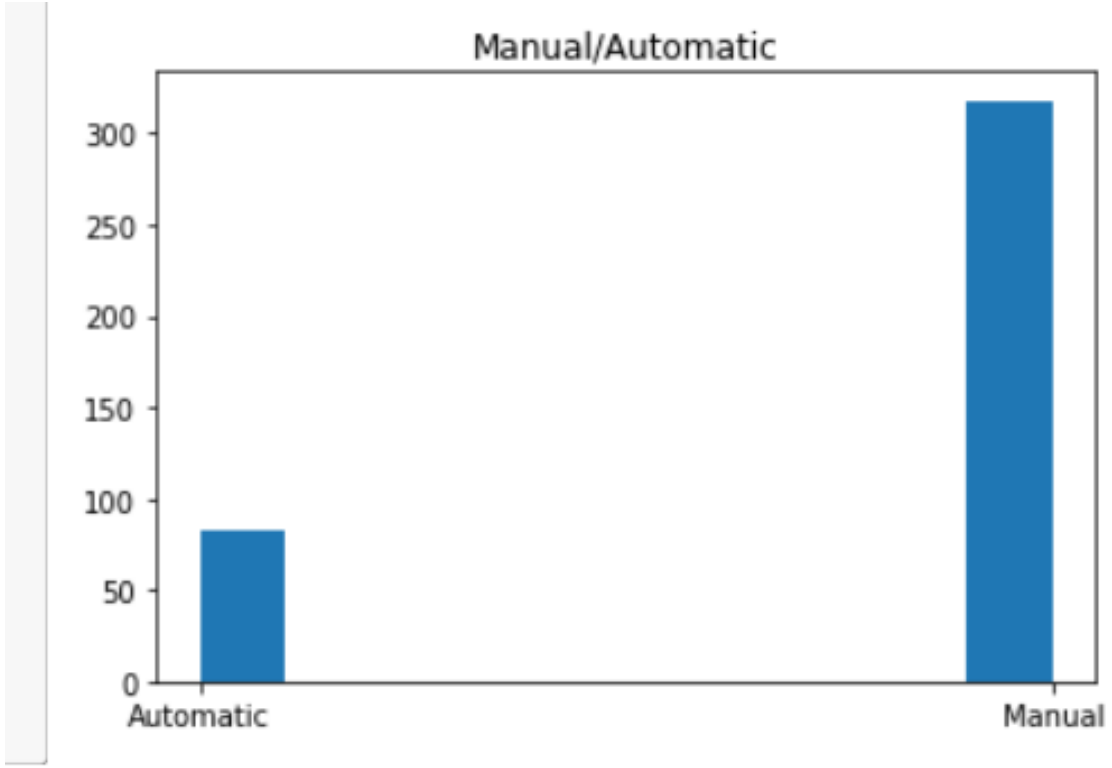

How many cars are Automatic and Manual in or dataframe

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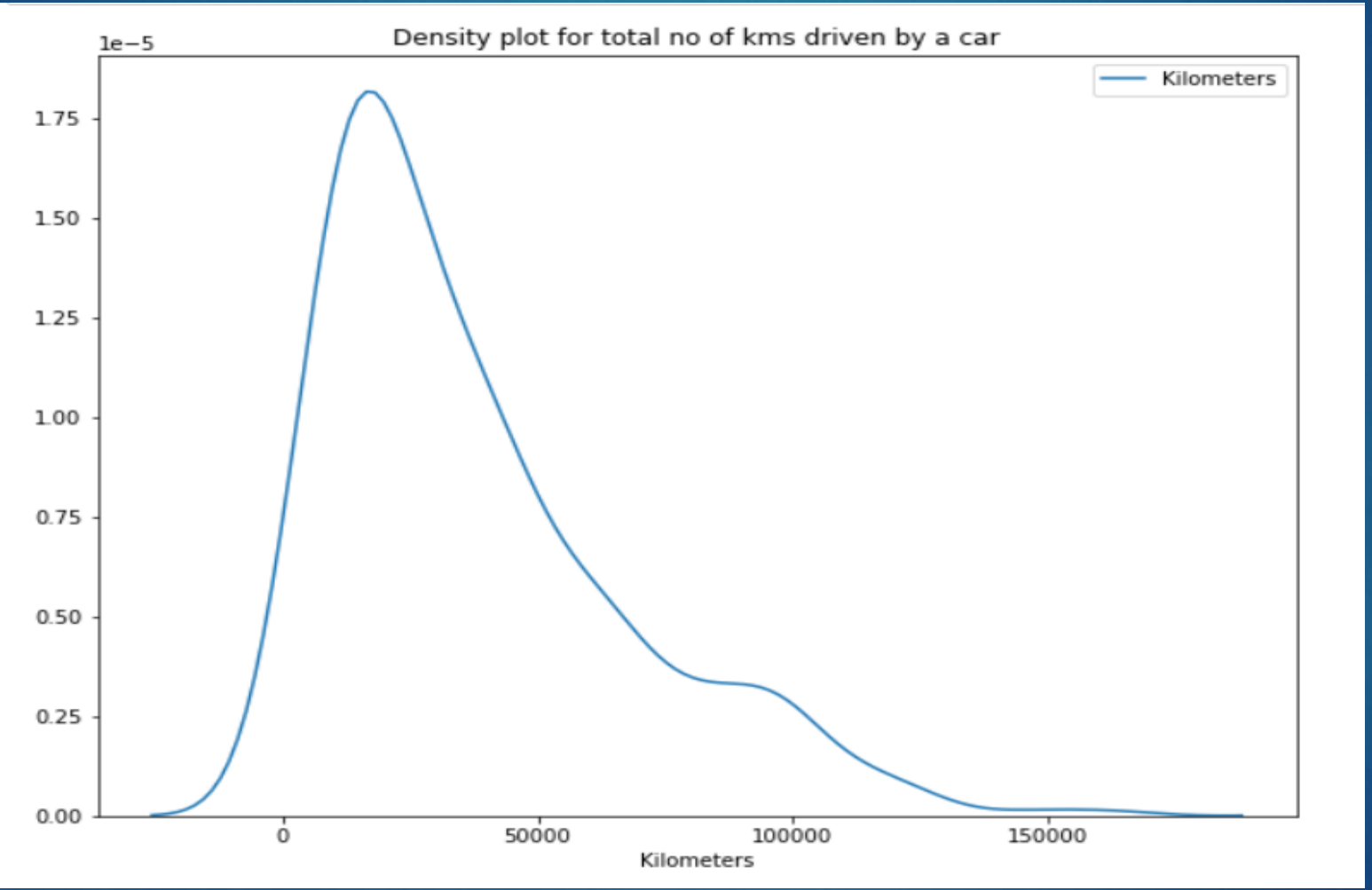
Kde plot



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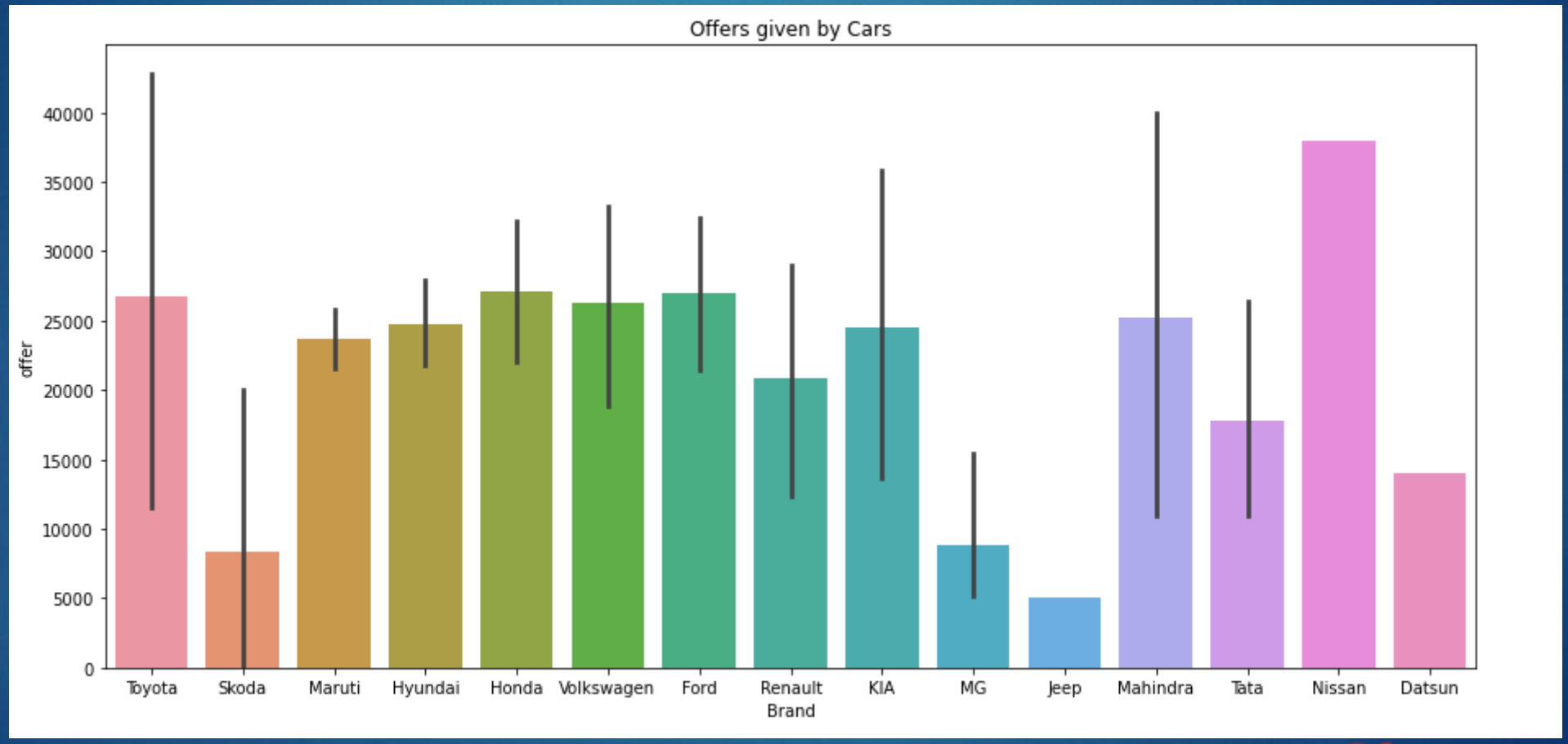
Bar plot



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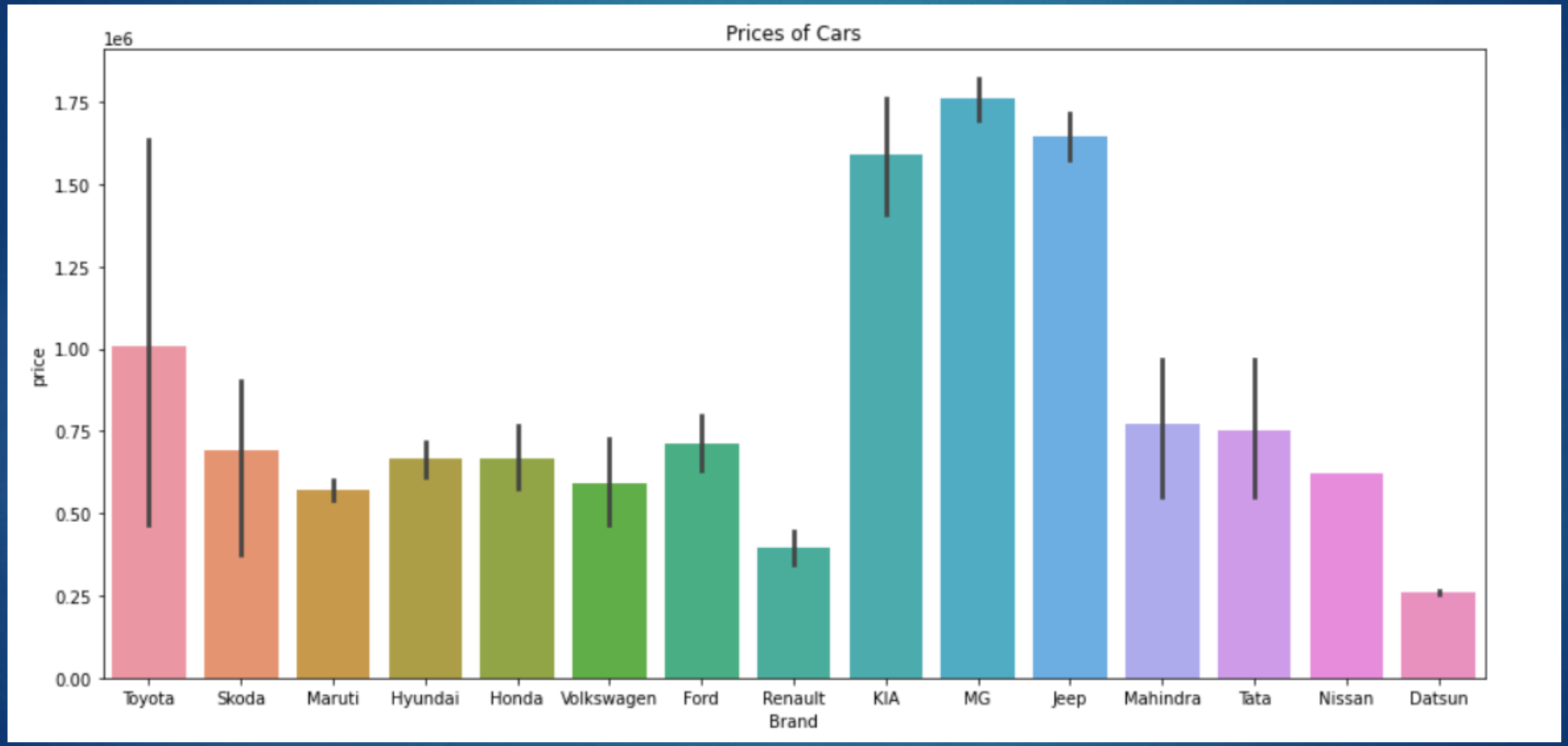
Bar plot on Brands and Prices



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CONCLUSION

By presenting this data visually

- Data is easily understood.
- Instead of checking full webpage data can we seen in single data frame.
- This helps in changes to be done in the business.

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THANK YOU

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