

Used Car Price Prediction

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The Problem:

How to predict the prices of
used cars in today's economy?




The Solution:

- Identify determining factors for predicting the prices of used cars for 2024 and onwards with predictive models.



The Dataset:

- Used Car Data:



	Car_ID	Brand	Model	Year	Kilometers_Driven	Fuel_Type	\
0	1	Toyota	Corolla	2018	50000	Petrol	
1	2	Honda	Civic	2019	40000	Petrol	
2	3	Ford	Mustang	2017	20000	Petrol	
3	4	Maruti	Swift	2020	30000	Diesel	
4	5	Hyundai	Sonata	2016	60000	Diesel	
..	
95	96	Mercedes	C-Class	2019	22000	Diesel	
96	97	Toyota	Innova Crysta	2017	38000	Diesel	
97	98	Ford	EcoSport	2018	26000	Petrol	
98	99	Hyundai	Verna	2019	24000	Petrol	
99	100	Tata	Altroz	2020	18000	Petrol	

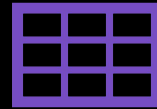
	Transmission	Owner_Type	Mileage	Engine	Power	Seats	Price
0	Manual	First	15	1498	108	5	800000
1	Automatic	Second	17	1597	140	5	1000000
2	Automatic	First	10	4951	395	4	2500000
3	Manual	Third	23	1248	74	5	600000
4	Automatic	Second	18	1999	194	5	850000
..
95	Automatic	First	16	1950	191	5	2900000
96	Manual	Second	13	2755	171	7	1400000
97	Manual	Third	18	1497	121	5	750000
98	Automatic	Second	17	1497	113	5	850000
99	Manual	First	20	1199	85	5	600000

[100 rows x 13 columns]

Data Wrangling



Analyze data types and identify missing values

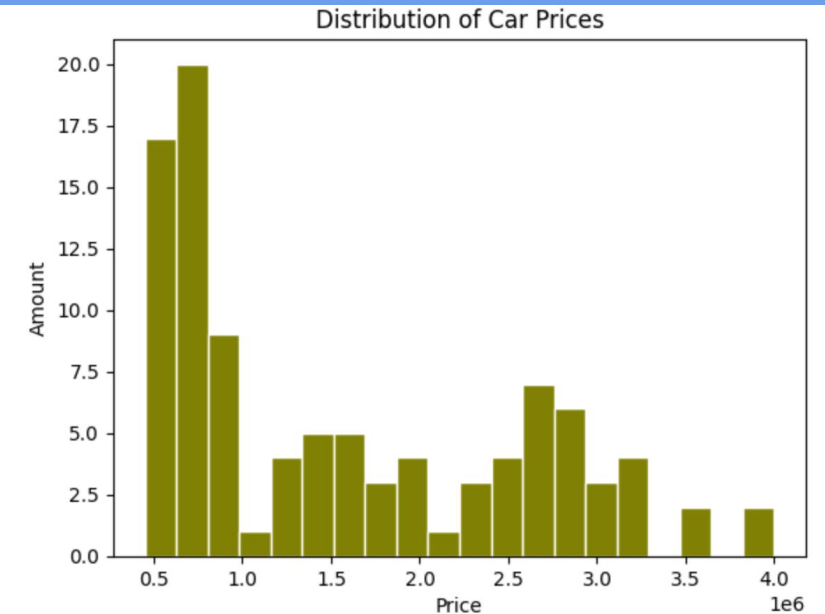
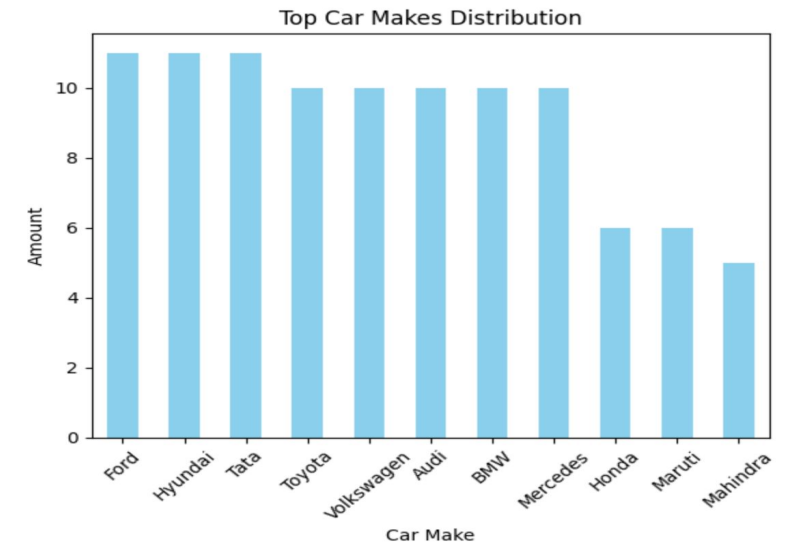


Drop rows with null values in all columns [Mileage, Fuel Type]



Target value: 'Prices'

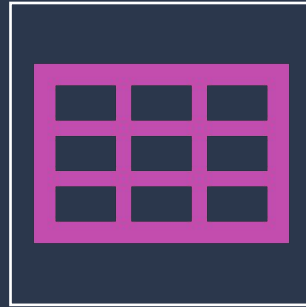
Exploratory Data Analysis:



Takeaways:



RandomForestClassifier was the most accurate model



Most features are not important
(Only used certain columns for analysis)

Future Analysis:

- Use more data from different car sale sources, specifically ones in US markets
- Use other models for prediction
- Obtain/use more recent datasets



Questions?