

```
In [ ]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

```
In [ ]: df=pd.read_csv('car_data.csv')
```

```
In [25]: df.head()
```

Unnamed: 0		Model	Year	Status	Mileage		MSRP
0	0	2022 Acura TLX A-Spec	2022	New	Not available		MSRP \$49,445
1	1	2023 Acura RDX A-Spec	2023	New	Not available		Not specified
2	2	2023 Acura TLX Type S	2023	New	Not available		Not specified
3	3	2023 Acura TLX Type S	2023	New	Not available		Not specified
4	4	2019 Acura MDX Sport Hybrid 3.0L w/Technology ...	2019	Used	32,675 mi.	\$600 price drop	

```
In [26]: df.describe()
```

Unnamed: 0		Year	
count	115762.000000	115762.000000	
mean	4613.208713	2019.706907	
std	2778.454982	4.525427	
min	0.000000	1949.000000	
25%	2226.000000	2018.000000	
50%	4452.000000	2021.000000	
75%	6950.000000	2023.000000	
max	10099.000000	2023.000000	

```
In [27]: df.all()
```

Out[27]:

Unnamed: 0	False
Model	True
Year	True
Status	True
Mileage	True
MSRP	True
dtype:	bool

```
In [28]: df.duplicated()
```

Out[28]:

0	False
1	False
2	False
3	False
4	False
...	
115757	False
115758	False
115759	False
115760	False
115761	False

Length: 115762, dtype: bool

```
In [29]: df.drop_duplicates()
```

Unnamed: 0		Model	Year	Status	Mileage		MSRP
0	0	2022 Acura TLX A-Spec	2022	New	Not available		MSRP \$49,445
1	1	2023 Acura RDX A-Spec	2023	New	Not available		Not specified
2	2	2023 Acura TLX Type S	2023	New	Not available		Not specified
3	3	2023 Acura TLX Type S	2023	New	Not available		Not specified
4	4	2019 Acura MDX Sport Hybrid 3.0L w/Technology ...	2019	Used	32,675 mi.	\$600 price drop	
...
115757	10005	2023 Volkswagen Atlas 3.6L SE w/Technology	2023	New	Not available		Not specified
115758	10006	2023 Volkswagen Taos 1.5T SE	2023	New	Not available		Not specified
115759	10007	2012 Volkswagen Beetle	2012	Used	100,395 mi.	\$252 price drop	
115760	10008	2022 Volkswagen ID.4 Pro S	2022	New	Not available		Not specified
115761	10009	2013 Volkswagen Passat 2.5 SE	2013	Used	125,757 mi.	Not specified	

115762 rows × 6 columns

```
In [30]: df.isnull()
```

Unnamed: 0		Model	Year	Status	Mileage	MSRP
0	False	False	False	False	False	False
1	False	False	False	False	False	False
2	False	False	False	False	False	False
3	False	False	False	False	False	False
4	False	False	False	False	False	False
...
115757	False	False	False	False	False	False
115758	False	False	False	False	False	False
115759	False	False	False	False	False	False
115760	False	False	False	False	False	False
115761	False	False	False	False	False	False

115762 rows × 6 columns

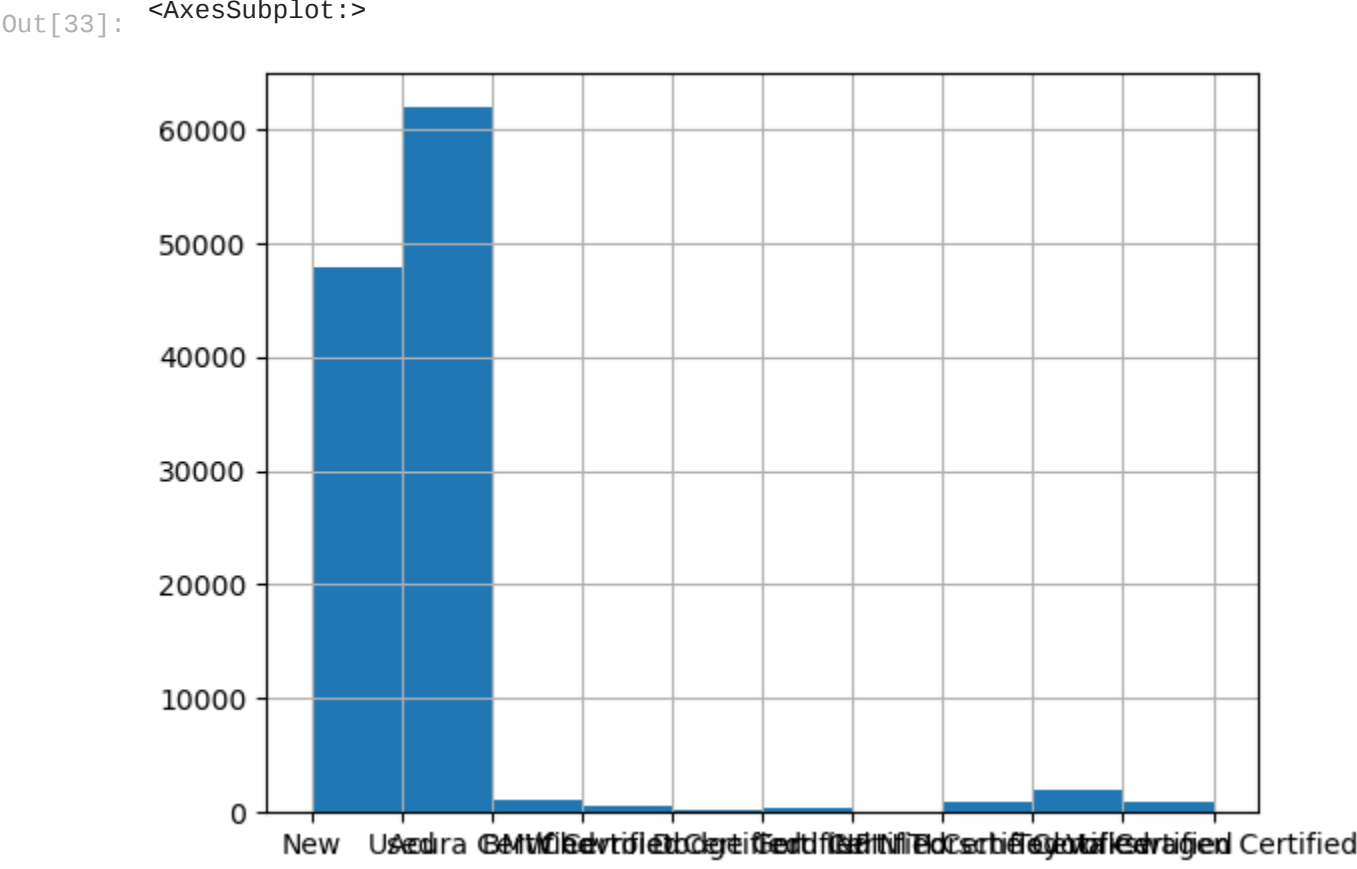
```
In [31]: del df['Year']
```

```
In [32]: df
```

Unnamed: 0		Model	Status	Mileage		MSRP
0	0	2022 Acura TLX A-Spec	New	Not available		MSRP \$49,445
1	1	2023 Acura RDX A-Spec	New	Not available		Not specified
2	2	2023 Acura TLX Type S	New	Not available		Not specified
3	3	2023 Acura TLX Type S	New	Not available		Not specified
4	4	2019 Acura MDX Sport Hybrid 3.0L w/Technology ...	Used	32,675 mi.	\$600 price drop	
...
115757	10005	2023 Volkswagen Atlas 3.6L SE w/Technology	New	Not available		Not specified
115758	10006	2023 Volkswagen Taos 1.5T SE	New	Not available		Not specified
115759	10007	2012 Volkswagen Beetle	Used	100,395 mi.	\$252 price drop	
115760	10008	2022 Volkswagen ID.4 Pro S	New	Not available		Not specified
115761	10009	2013 Volkswagen Passat 2.5 SE	Used	125,757 mi.	Not specified	

115762 rows × 5 columns

```
In [33]: df['Status'].hist()
```



```
In [ ]: df['Mileage'].hist()
```

```
In [ ]:
```