Basic Analysis using Numpy and Pandas

import libraries

In [1]:
```
import pandas as pd
import numpy as np
```

import dataset

In [2]:
```
data=pd.read_csv(r"E:\154\fiat500_VehicleSelection_Dataset - fiat500_VehicleSelection_D
```

In [3]:
```
display(data)
```

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	p
0	1.0	lounge	51.0	882.0	25000.0	1.0	44.907242	8.611559868	8
1	2.0	pop	51.0	1186.0	32500.0	1.0	45.666359	12.24188995	8
2	3.0	sport	74.0	4658.0	142228.0	1.0	45.503300	11.41784	4
3	4.0	lounge	51.0	2739.0	160000.0	1.0	40.633171	17.63460922	6
4	5.0	pop	73.0	3074.0	106880.0	1.0	41.903221	12.49565029	5
...	...	...	...	...	...	...	...	...	
1544	NaN	NaN	NaN	NaN	NaN	NaN	NaN	length	
1545	NaN	NaN	NaN	NaN	NaN	NaN	NaN	concat	lonp
1546	NaN	NaN	NaN	NaN	NaN	NaN	NaN	Null values	
1547	NaN	NaN	NaN	NaN	NaN	NaN	NaN	find	
1548	NaN	NaN	NaN	NaN	NaN	NaN	NaN	search	

1549 rows × 11 columns

To display top 10 rows

In [4]:
```
data.head()
```

Out[4]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price	U
0	1.0	lounge	51.0	882.0	25000.0	1.0	44.907242	8.611559868	8900	

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price	U
1	2.0	pop	51.0	1186.0	32500.0	1.0	45.666359	12.24188995	8800	
2	3.0	sport	74.0	4658.0	142228.0	1.0	45.503300	11.41784	4200	
3	4.0	lounge	51.0	2739.0	160000.0	1.0	40.633171	17.63460922	6000	
4	5.0	pop	73.0	3074.0	106880.0	1.0	41.903221	12.49565029	5700	

To display last 5 rows

In [5]:
```
data.tail()
```

Out[5]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price	Unnamed
1544	NaN	NaN	NaN	NaN	NaN	NaN	NaN	length	5	NaN
1545	NaN	NaN	NaN	NaN	NaN	NaN	NaN	concat	lonprice	NaN
1546	NaN	NaN	NaN	NaN	NaN	NaN	NaN	Null values	NO	NaN
1547	NaN	NaN	NaN	NaN	NaN	NaN	NaN	find	1	NaN
1548	NaN	NaN	NaN	NaN	NaN	NaN	NaN	search	1	NaN

In [6]:
```
data.dtypes
```

Out[6]:
```
ID                 float64
model               object
engine_power       float64
age_in_days        float64
km                 float64
previous_owners    float64
lat                float64
lon                 object
price               object
Unnamed: 9         float64
Unnamed: 10         object
dtype: object
```

To view statistical summary

In [7]:
```
data.describe()
```

Out[7]:

	ID	engine_power	age_in_days	km	previous_owners	lat	Unnamed:
count	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	0.0
mean	769.500000	51.904421	1650.980494	53396.011704	1.123537	43.541361	NaN

	ID	engine_power	age_in_days	km	previous_owners	lat	Unnamed: 9
std	444.126671	3.988023	1289.522278	40046.830723	0.416423	2.133518	NaN
min	1.000000	51.000000	366.000000	1232.000000	1.000000	36.855839	NaN
25%	385.250000	51.000000	670.000000	20006.250000	1.000000	41.802990	NaN
50%	769.500000	51.000000	1035.000000	39031.000000	1.000000	44.394096	NaN
75%	1153.750000	51.000000	2616.000000	79667.750000	1.000000	45.467960	NaN
max	1538.000000	77.000000	4658.000000	235000.000000	4.000000	46.795612	NaN

To Print no of elements

In [8]:
```
data.size
```

Out[8]: 17039

In [9]:
```
data.ndim
```

Out[9]: 2

To print no of rows and columns

In [10]:
```
data.shape
```

Out[10]: (1549, 11)

To find missing values

In [11]:
```
data.isna()
```

Out[11]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price	Unnamed: 9	U
0	False	False	False	False	False	False	False	False	False	True	
1	False	False	False	False	False	False	False	False	False	True	
2	False	False	False	False	False	False	False	False	False	True	
3	False	False	False	False	False	False	False	False	False	True	
4	False	False	False	False	False	False	False	False	False	True	
...	...	...	...	...	...	...	...	...	...	...	
1544	True	True	True	True	True	True	True	False	False	True	
1545	True	True	True	True	True	True	True	False	False	True	

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price	Unnamed: 9	U
1546	True	True	True	True	True	True	True	False	False	True	
1547	True	True	True	True	True	True	True	False	False	True	
1548	True	True	True	True	True	True	True	False	False	True	

1549 rows × 11 columns

To fills nulll values with constatns

In [12]:
```
data.fillna(5)
```

Out[12]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	pri
0	1.0	lounge	51.0	882.0	25000.0	1.0	44.907242	8.611559868	89
1	2.0	pop	51.0	1186.0	32500.0	1.0	45.666359	12.24188995	88
2	3.0	sport	74.0	4658.0	142228.0	1.0	45.503300	11.41784	42
3	4.0	lounge	51.0	2739.0	160000.0	1.0	40.633171	17.63460922	60
4	5.0	pop	73.0	3074.0	106880.0	1.0	41.903221	12.49565029	57
...	...	...	...	...	...	...	...	...	
1544	5.0	5	5.0	5.0	5.0	5.0	5.000000	length	
1545	5.0	5	5.0	5.0	5.0	5.0	5.000000	concat	lonpri
1546	5.0	5	5.0	5.0	5.0	5.0	5.000000	Null values	N
1547	5.0	5	5.0	5.0	5.0	5.0	5.000000	find	
1548	5.0	5	5.0	5.0	5.0	5.0	5.000000	search	

1549 rows × 11 columns

In [ ]:
```
```