

```
In [1]: import pandas as pd  
data=pd.read_csv("/home/placement/Downloads/fiat500.csv")
```

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In [2]: data.describe()
```

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Out[2]:
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	ID	engine_power	age_in_days	km	previous_owners	lat	lon	price
<b>count</b>	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000
<b>mean</b>	769.500000	51.904421	1650.980494	53396.011704	1.123537	43.541361	11.563428	8576.003901
<b>std</b>	444.126671	3.988023	1289.522278	40046.830723	0.416423	2.133518	2.328190	1939.958641
<b>min</b>	1.000000	51.000000	366.000000	1232.000000	1.000000	36.855839	7.245400	2500.000000
<b>25%</b>	385.250000	51.000000	670.000000	20006.250000	1.000000	41.802990	9.505090	7122.500000
<b>50%</b>	769.500000	51.000000	1035.000000	39031.000000	1.000000	44.394096	11.869260	9000.000000
<b>75%</b>	1153.750000	51.000000	2616.000000	79667.750000	1.000000	45.467960	12.769040	10000.000000
<b>max</b>	1538.000000	77.000000	4658.000000	235000.000000	4.000000	46.795612	18.365520	11100.000000

In [3]: data

Out[3]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price
0	1	lounge	51	882	25000	1	44.907242	8.611560	8900
1	2	pop	51	1186	32500	1	45.666359	12.241890	8800
2	3	sport	74	4658	142228	1	45.503300	11.417840	4200
3	4	lounge	51	2739	160000	1	40.633171	17.634609	6000
4	5	pop	73	3074	106880	1	41.903221	12.495650	5700
...	...	...	...	...	...	...	...	...	...
1533	1534	sport	51	3712	115280	1	45.069679	7.704920	5200
1534	1535	lounge	74	3835	112000	1	45.845692	8.666870	4600
1535	1536	pop	51	2223	60457	1	45.481541	9.413480	7500
1536	1537	lounge	51	2557	80750	1	45.000702	7.682270	5990
1537	1538	pop	51	1766	54276	1	40.323410	17.568270	7900

1538 rows × 9 columns

In [4]: list(data)

Out[4]: ['ID',  
'model',  
'engine\_power',  
'age\_in\_days',  
'km',  
'previous\_owners',  
'lat',  
'lon',  
'price']

In [6]: data['model']=data['model'].map({'lounge':1,'pop':2,'sport':3})

In [7]: data

Out[7]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price
0	1	1	51	882	25000	1	44.907242	8.611560	8900
1	2	2	51	1186	32500	1	45.666359	12.241890	8800
2	3	3	74	4658	142228	1	45.503300	11.417840	4200
3	4	1	51	2739	160000	1	40.633171	17.634609	6000
4	5	2	73	3074	106880	1	41.903221	12.495650	5700
...	...	...	...	...	...	...	...	...	...
1533	1534	3	51	3712	115280	1	45.069679	7.704920	5200
1534	1535	1	74	3835	112000	1	45.845692	8.666870	4600
1535	1536	2	51	2223	60457	1	45.481541	9.413480	7500
1536	1537	1	51	2557	80750	1	45.000702	7.682270	5990
1537	1538	2	51	1766	54276	1	40.323410	17.568270	7900

1538 rows × 9 columns

In [8]: cor=data.corr()

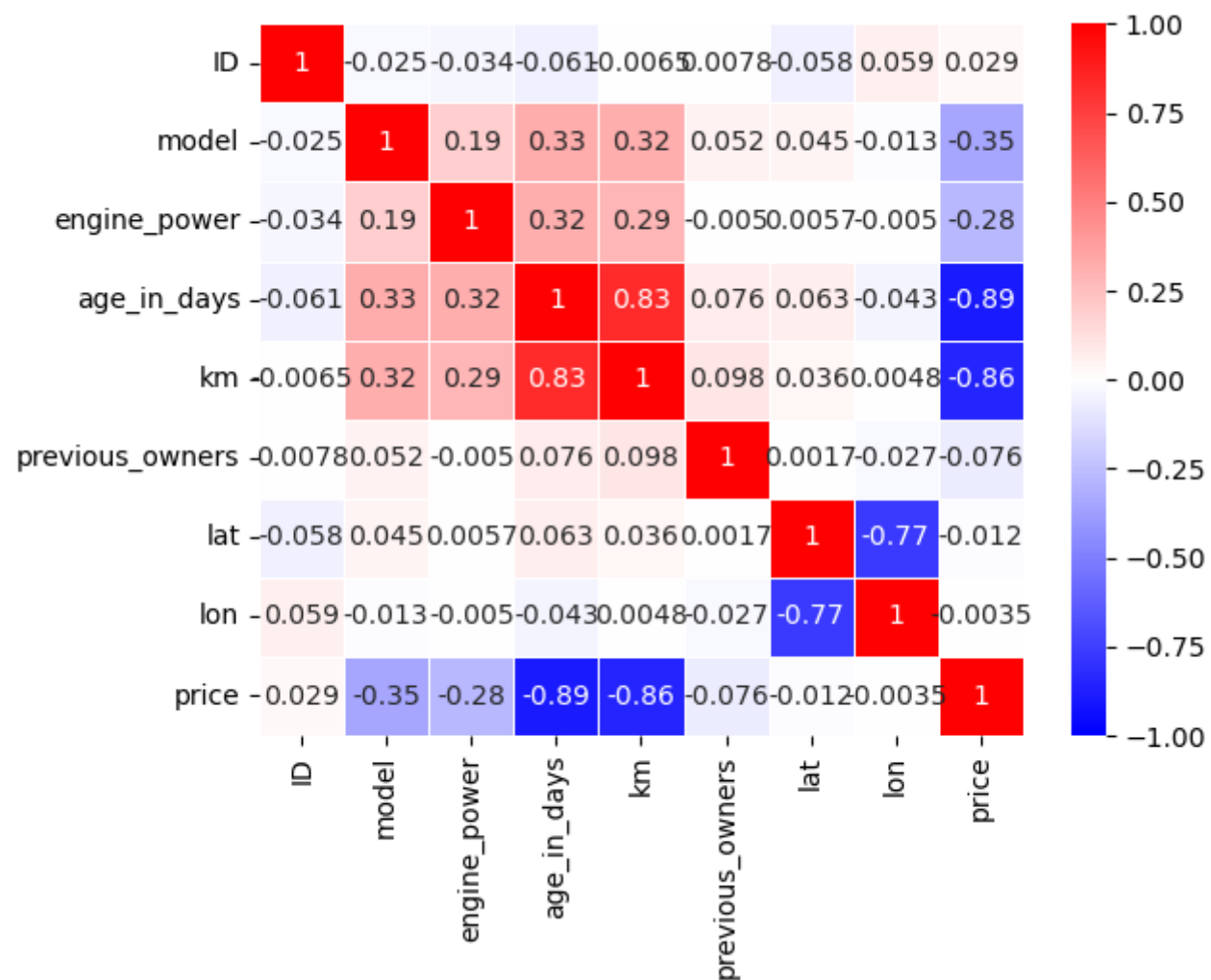
In [9]: cor

Out[9]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price
<b>ID</b>	1.000000	-0.024740	-0.034059	-0.060753	-0.006537	0.007803	-0.058207	0.058941	0.028516
<b>model</b>	-0.024740	1.000000	0.189906	0.326508	0.319580	0.052480	0.044901	-0.013200	-0.349885
<b>engine_power</b>	-0.034059	0.189906	1.000000	0.319190	0.285495	-0.005030	0.005721	-0.005032	-0.277235
<b>age_in_days</b>	-0.060753	0.326508	0.319190	1.000000	0.833890	0.075775	0.062982	-0.042667	-0.893328
<b>km</b>	-0.006537	0.319580	0.285495	0.833890	1.000000	0.097539	0.035519	0.004839	-0.859373
<b>previous_owners</b>	0.007803	0.052480	-0.005030	0.075775	0.097539	1.000000	0.001697	-0.026836	-0.076274
<b>lat</b>	-0.058207	0.044901	0.005721	0.062982	0.035519	0.001697	1.000000	-0.766646	-0.011733
<b>lon</b>	0.058941	-0.013200	-0.005032	-0.042667	0.004839	-0.026836	-0.766646	1.000000	-0.003541
<b>price</b>	0.028516	-0.349885	-0.277235	-0.893328	-0.859373	-0.076274	-0.011733	-0.003541	1.000000

```
In [13]: import seaborn as sns
sns.heatmap(cor, vmax=1, vmin=-1, annot=True, linewidths=.5, cmap='bwr')
```

Out[13]: <Axes: >



In [ ]: