In [28]:

```python
import pandas as pd
```

In [29]:

```python
import numpy as np
```

In [30]:

```python
data=pd.read_csv('/home/palcement/Downloads/fiat500.csv')
```

In [31]:

```python
data.head()
```

Out[31]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	pri
0	1	lounge	51	882	25000	1	44.907242	8.611560	890
1	2	pop	51	1186	32500	1	45.666359	12.241890	880
2	3	sport	74	4658	142228	1	45.503300	11.417840	420
3	4	lounge	51	2739	160000	1	40.633171	17.634609	600
4	5	pop	73	3074	106880	1	41.903221	12.495650	570

In [32]:

```python
data.describe()
```

Out[32]:

	ID	engine_power	age_in_days	km	previous_owners	lat
count	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000	1538.000000
mean	769.500000	51.904421	1650.980494	53396.011704	1.123537	43.541361
std	444.126671	3.988023	1289.522278	40046.830723	0.416423	2.133518
min	1.000000	51.000000	366.000000	1232.000000	1.000000	36.855839
25%	385.250000	51.000000	670.000000	20006.250000	1.000000	41.802990
50%	769.500000	51.000000	1035.000000	39031.000000	1.000000	44.394096
75%	1153.750000	51.000000	2616.000000	79667.750000	1.000000	45.467960
max	1538.000000	77.000000	4658.000000	235000.000000	4.000000	46.795612

In [33]:

```python
data.tail()
```

Out[33]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon
1533	1534	sport	51	3712	115280	1	45.069679	7.70492
1534	1535	lounge	74	3835	112000	1	45.845692	8.66687
1535	1536	pop	51	2223	60457	1	45.481541	9.41348
1536	1537	lounge	51	2557	80750	1	45.000702	7.68227
1537	1538	pop	51	1766	54276	1	40.323410	17.56827

In [34]:

```python
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1538 entries, 0 to 1537
Data columns (total 9 columns):
 #   Column           Non-Null Count  Dtype
---  ------           --------------  -----
 0   ID               1538 non-null   int64
 1   model            1538 non-null   object
 2   engine_power     1538 non-null   int64
 3   age_in_days      1538 non-null   int64
 4   km               1538 non-null   int64
 5   previous_owners  1538 non-null   int64
 6   lat              1538 non-null   float64
 7   lon              1538 non-null   float64
 8   price            1538 non-null   int64
dtypes: float64(2), int64(6), object(1)
memory usage: 108.3+ KB
```

In [35]:

```python
list(data)
```

Out[35]:

```
['ID',
 'model',
 'engine_power',
 'age_in_days',
 'km',
 'previous_owners',
 'lat',
 'lon',
 'price']
```

In [36]:

```python
data['model']=data['model'].map({'lounge':1,'pop':2,'sport':3})
```
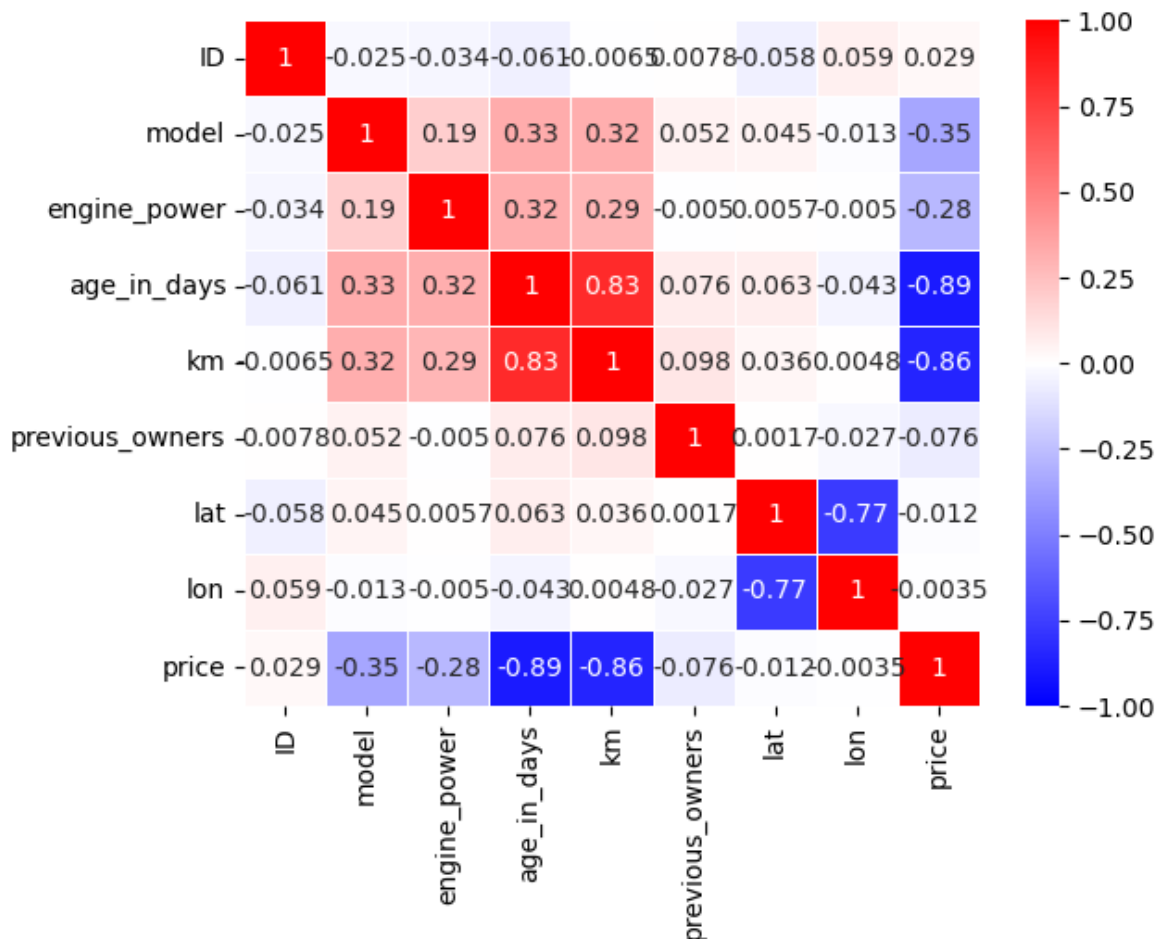
In [39]:

```python
cor=data.corr()
cor
```

Out[39]:

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

In [49]:

```python
import seaborn as sns
sns.heatmap(cor,vmax=1,vmin=-1,annot=True,linewidths=.5,cmap='bwr')
```

Out[49]:

```
<Axes: >
```

In [ ]: