In [3]: `!pip3 install pandas`

```
Requirement already satisfied: pandas in ./anaconda3/lib/python3.10/site-packages (1.5.3)
Requirement already satisfied: python-dateutil>=2.8.1 in ./anaconda3/lib/python3.10/site-packages (from pan
das) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in ./anaconda3/lib/python3.10/site-packages (from pandas) (202
2.7)
Requirement already satisfied: numpy>=1.21.0 in ./anaconda3/lib/python3.10/site-packages (from pandas) (1.2
3.5)
Requirement already satisfied: six>=1.5 in ./anaconda3/lib/python3.10/site-packages (from python-dateutil>=
2.8.1->pandas) (1.16.0)
```

In [4]: `!pip3 install numpy`

```
Requirement already satisfied: numpy in ./anaconda3/lib/python3.10/site-packages (1.23.5)
```

In [5]: `import pandas as pd`

In [6]: `data=pd.read_csv("/home/placement/Downloads/fiat500.csv")`

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

Out[7]:

	ID	engine_power	age_in_days	km	previous_owners	lat	lon	price
count	1538.000000	1538.000000	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	11.563428	8576.003901
std	444.126671	3.988023	1289.522278	40046.830723	0.416423	2.133518	2.328190	1939.958641
min	1.000000	51.000000	366.000000	1232.000000	1.000000	36.855839	7.245400	2500.000000
25%	385.250000	51.000000	670.000000	20006.250000	1.000000	41.802990	9.505090	7122.500000
50%	769.500000	51.000000	1035.000000	39031.000000	1.000000	44.394096	11.869260	9000.000000
75%	1153.750000	51.000000	2616.000000	79667.750000	1.000000	45.467960	12.769040	10000.000000
max	1538.000000	77.000000	4658.000000	235000.000000	4.000000	46.795612	18.365520	11100.000000

In [8]: `data.head()`

Out[8]:

	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

In [9]: `data.head(10)`

Out[9]:

	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
5	6	pop	74	3623	70225	1	45.000702	7.682270	7900
6	7	lounge	51	731	11600	1	44.907242	8.611560	10750
7	8	lounge	51	1521	49076	1	41.903221	12.495650	9190
8	9	sport	73	4049	76000	1	45.548000	11.549470	5600
9	10	sport	51	3653	89000	1	45.438301	10.991700	6000

In [10]: `data.tail(10)`

Out[10]:

	ID	model	engine_power	age_in_days	km	previous_owners	lat	lon	price
1528	1529	lounge	51	2861	126000	1	43.841980	10.51531	5500
1529	1530	lounge	51	731	22551	1	38.122070	13.36112	9900
1530	1531	lounge	51	670	29000	1	45.764648	8.99450	10800
1531	1532	sport	73	4505	127000	1	45.528511	9.59323	4750
1532	1533	pop	51	1917	52008	1	45.548000	11.54947	9900
1533	1534	sport	51	3712	115280	1	45.069679	7.70492	5200
1534	1535	lounge	74	3835	112000	1	45.845692	8.66687	4600
1535	1536	pop	51	2223	60457	1	45.481541	9.41348	7500
1536	1537	lounge	51	2557	80750	1	45.000702	7.68227	5990
1537	1538	pop	51	1766	54276	1	40.323410	17.56827	7900

In [13]:
```python
data1=data.drop(['lat','ID'],axis=1)
data1
```

Out[13]:

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

1538 rows × 7 columns

In [14]:
```python
!pip3 install pymysql
```

Requirement already satisfied: pymysql in ./anaconda3/lib/python3.10/site-packages (1.0.3)

In [16]:
```python
import warnings
warnings.filterwarnings('ignore')
```
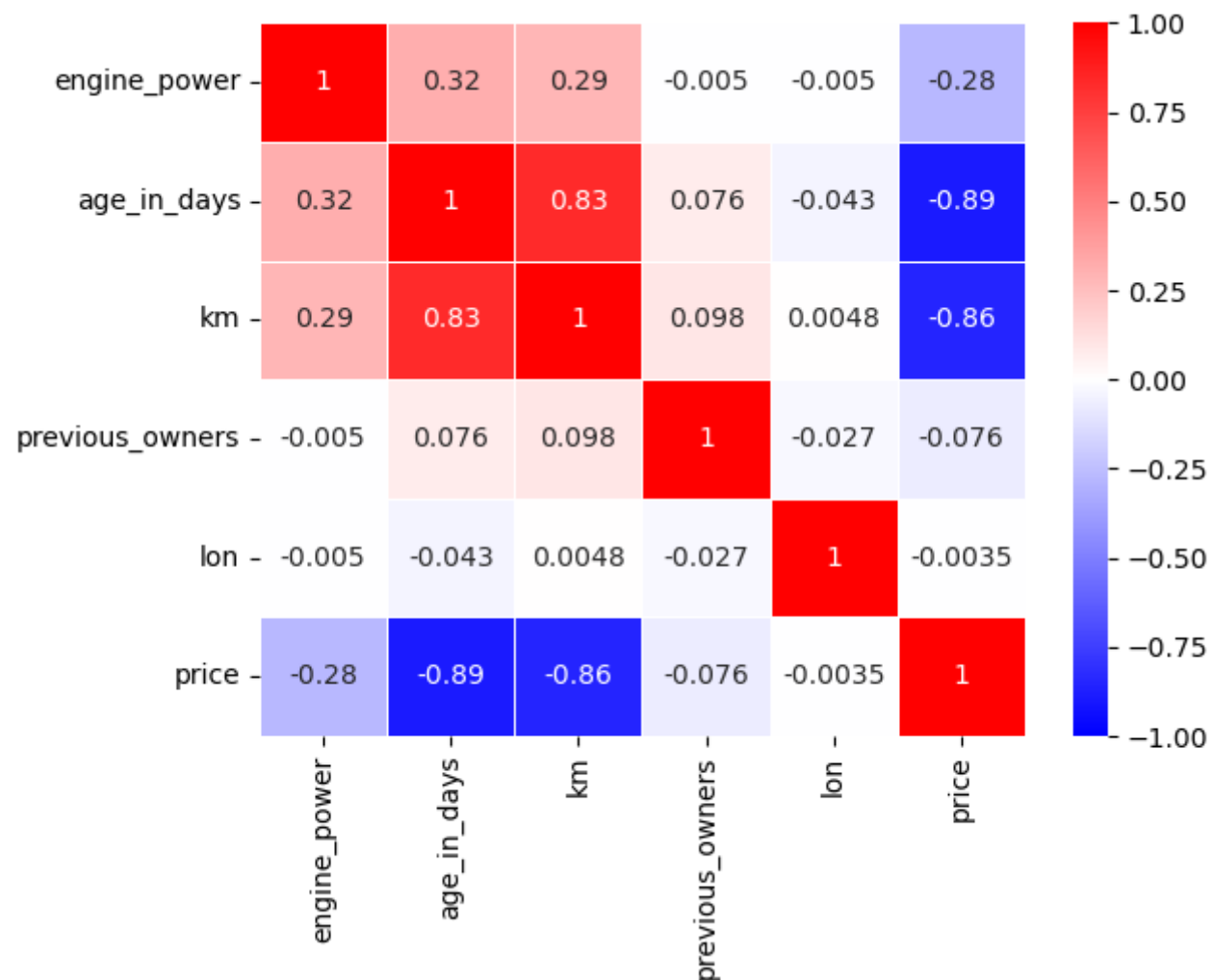
In [17]:
```python
cor=data1.corr()
cor
```

Out[17]:

	engine_power	age_in_days	km	previous_owners	lon	price
engine_power	1.000000	0.319190	0.285495	-0.005030	-0.005032	-0.277235
age_in_days	0.319190	1.000000	0.833890	0.075775	-0.042667	-0.893328
km	0.285495	0.833890	1.000000	0.097539	0.004839	-0.859373
previous_owners	-0.005030	0.075775	0.097539	1.000000	-0.026836	-0.076274
lon	-0.005032	-0.042667	0.004839	-0.026836	1.000000	-0.003541
price	-0.277235	-0.893328	-0.859373	-0.076274	-0.003541	1.000000

In [18]:
```python
import seaborn as sns
sns.heatmap(cor,vmax=1,vmin=-1,annot=True,linewidth=.5,cmap='bwr')
```

Out[18]: <Axes: >

In [ ]: