In [1]:
```
import pandas as pd
data=pd.read_csv("/home/placement/Desktop/EEE(222)/fiat500.csv")
```

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

Out[2]:

| | 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 [3]:
```
list(data)
```

Out[3]:
```
['ID',
 'model',
 'engine_power',
 'age_in_days',
 'km',
 'previous_owners',
 'lat',
 'lon',
 'price']
```

In [4]:
```
data['model']=data['model'].map({'lounge':1,'pop':2,'sport':3})
```

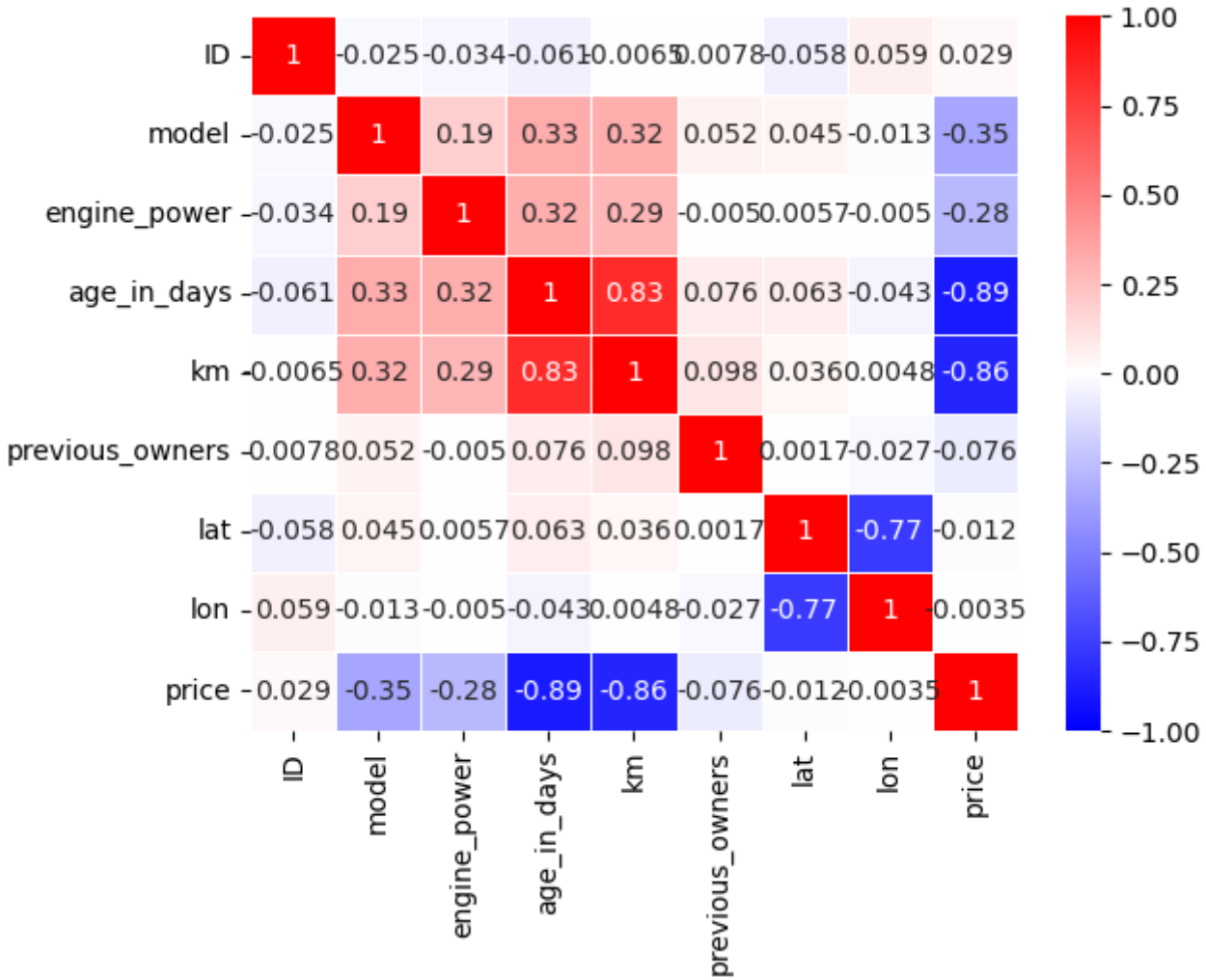
In [6]:
```
cor=data.corr()
cor
```

Out[6]:

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

In [7]:
```
import seaborn as sns
sns.heatmap(cor,vmax=1,vmin=-1,annot=True,linewidths=.5,cmap='bwr')
```

Out[7]: <Axes: >



In [ ]: