

In [1]: 1 **import** pandas **as** pd

In [2]: 1 data=pd.read_csv('correlation_data.csv')

In [3]: 1 data.head()

Out[3]:

	1	2	Unnamed: 2	Unnamed: 3	Unnamed: 4	Unnamed: 5	Unnamed: 6	Unnamed: 7	Unnamed: 8	Unnamed: 9	Unnamed: 10	Unnamed: 11	Unnamed: 12	Unnamed: 13
0	2.0	3.0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1	3.0	4.0	NaN	NaN	NaN	NaN	NaN	x	y	z	NaN	NaN	NaN	NaN
2	5.0	6.0	NaN	NaN	NaN	NaN	NaN	1	1	10	NaN	NaN	NaN	NaN
3	7.0	8.0	NaN	NaN	NaN	NaN	NaN	2	3	15	NaN	NaN	NaN	NaN
4	11.0	10.0	NaN	NaN	NaN	NaN	NaN	3	8	5	NaN	NaN	NaN	NaN

```
In [14]: 1 data.corr()
```

ValueError

Traceback (most recent call last)

Cell In[14], line 1

----> 1 data.corr()

File ~/.local/lib/python3.8/site-packages/pandas/core/frame.py:10054, in DataFrame.corr(self, method, min_periods, numeric_only)

10052 cols = data.columns

10053 idx = cols.copy()

> 10054 mat = data.to_numpy(dtype=float, na_value=np.nan, copy=False)

10055 if method == "pearson":

10057 correl = libalgos.nancorr(mat, minp=min_periods)

File ~/.local/lib/python3.8/site-packages/pandas/core/frame.py:1838, in DataFrame.to_numpy(self, dtype, copy, na_value)

1836 if dtype is not None:

1837 dtype = np.dtype(dtype)

-> 1838 result = self._mgr.as_array(dtype=dtype, copy=copy, na_value=na_value)

1839 if result.dtype is not dtype:

1840 result = np.array(result, dtype=dtype, copy=False)

File ~/.local/lib/python3.8/site-packages/pandas/core/internals/managers.py:1732, in BlockManager.as_array(self, dtype, copy, na_value)

1730 arr.flags.writeable = False

1731 else:

-> 1732 arr = self._interleave(dtype=dtype, na_value=na_value)

1733 # The underlying data was copied within _interleave, so no need

1734 # to further copy if copy=True or setting na_value

1736 if na_value is not lib.no_default:

File ~/.local/lib/python3.8/site-packages/pandas/core/internals/managers.py:1794, in BlockManager._interleave(self, dtype, na_value)

1792 else:

1793 arr = blk.get_values(dtype)

-> 1794 result[rl.indexer] = arr

1795 itemmask[rl.indexer] = 1

1797 if not itemmask.all():

ValueError: could not convert string to float: 'x'

```
In [4]: 1 data1=pd.read_csv('fiat500.csv')
```

```
In [5]: 1 list(data1)
```

```
Out[5]: ['ID',  
        'model',  
        'engine_power',  
        'age_in_days',  
        'km',  
        'previous_owners',  
        'lat',  
        'lon',  
        'price']
```

```
In [9]: 1 data2=data1.drop(['model'],axis=1)
```

```
In [11]: 1 list(data2)
```

```
Out[11]: ['ID',  
        'engine_power',  
        'age_in_days',  
        'km',  
        'previous_owners',  
        'lat',  
        'lon',  
        'price']
```

In [12]:

```
1 data2.head()
```

Out[12]:

	ID	engine_power	age_in_days	km	previous_owners	lat	lon	price
0	1	51	882	25000	1	44.907242	8.611560	8900
1	2	51	1186	32500	1	45.666359	12.241890	8800
2	3	74	4658	142228	1	45.503300	11.417840	4200
3	4	51	2739	160000	1	40.633171	17.634609	6000
4	5	73	3074	106880	1	41.903221	12.495650	5700

In [13]:

```
1 data1.head()
```

Out[13]:

	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 [15]: 1 data2.corr()

Out[15]:

	ID	engine_power	age_in_days	km	previous_owners	lat	lon	price
ID	1.000000	-0.034059	-0.060753	-0.006537	0.007803	-0.058207	0.058941	0.028516
engine_power	-0.034059	1.000000	0.319190	0.285495	-0.005030	0.005721	-0.005032	-0.277235
age_in_days	-0.060753	0.319190	1.000000	0.833890	0.075775	0.062982	-0.042667	-0.893328
km	-0.006537	0.285495	0.833890	1.000000	0.097539	0.035519	0.004839	-0.859373
previous_owners	0.007803	-0.005030	0.075775	0.097539	1.000000	0.001697	-0.026836	-0.076274
lat	-0.058207	0.005721	0.062982	0.035519	0.001697	1.000000	-0.766646	-0.011733
lon	0.058941	-0.005032	-0.042667	0.004839	-0.026836	-0.766646	1.000000	-0.003541
price	0.028516	-0.277235	-0.893328	-0.859373	-0.076274	-0.011733	-0.003541	1.000000

In []:

1