In [5]:
```
import numpy as np
import pandas as pd
```

In [6]:
```
housing = pd.read_csv(r"D:\PG-DAI\MachineLearning\Dec 14 Multiple Linear Regression Housing\Housing.csv")
```

In [7]:
```
housing.head()
```

Out[7]:

	price	area	bedrooms	bathrooms	stories	mainroad	guestroom	basement	hotwaterheating	airconditioning	parking	prefarea	furnishingstatus
0	13300000	7420	4	2	3	yes	no	no	no	yes	2	yes	furnished
1	12250000	8960	4	4	4	yes	no	no	no	yes	3	no	furnished
2	12250000	9960	3	2	2	yes	no	yes	no	no	2	yes	semi-furnished
3	12215000	7500	4	2	2	yes	no	yes	no	yes	3	yes	furnished
4	11410000	7420	4	1	2	yes	yes	yes	no	yes	2	no	furnished

In [8]:
```
housing.describe()
```

Out[8]:

	price	area	bedrooms	bathrooms	stories	parking
count	5.450000e+02	545.000000	545.000000	545.000000	545.000000	545.000000
mean	4.766729e+06	5150.541284	2.965138	1.286239	1.805505	0.693578
std	1.870440e+06	2170.141023	0.738064	0.502470	0.867492	0.861586
min	1.750000e+06	1650.000000	1.000000	1.000000	1.000000	0.000000
25%	3.430000e+06	3600.000000	2.000000	1.000000	1.000000	0.000000
50%	4.340000e+06	4600.000000	3.000000	1.000000	2.000000	0.000000
75%	5.740000e+06	6360.000000	3.000000	2.000000	2.000000	1.000000
max	1.330000e+07	16200.000000	6.000000	4.000000	4.000000	3.000000

In [13]:
```
housing.info()
housing.shape
```

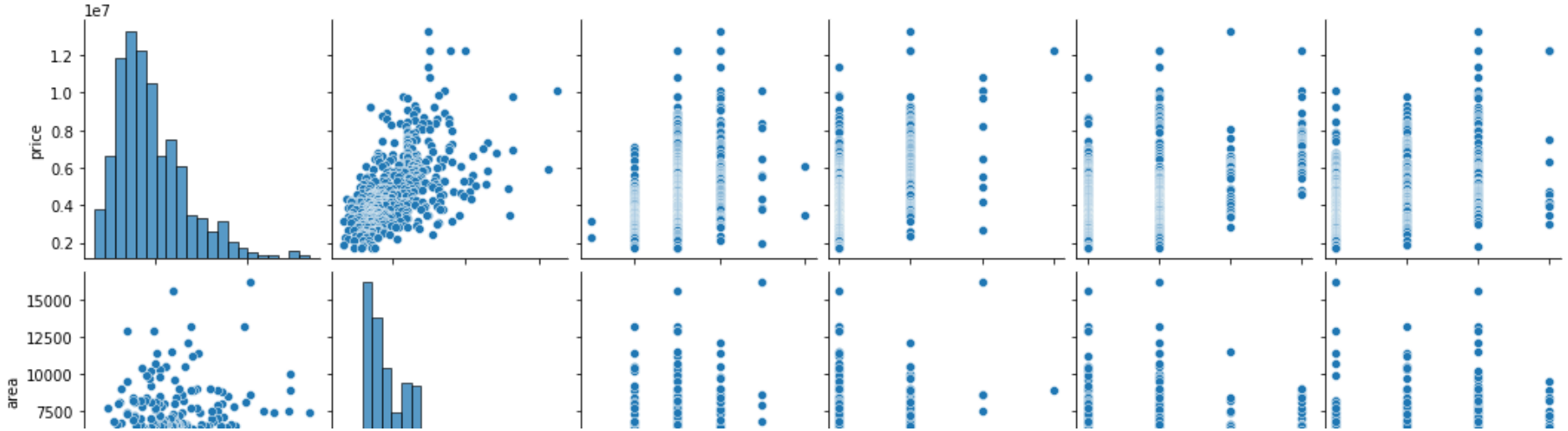
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 545 entries, 0 to 544
Data columns (total 13 columns):
 #   Column            Non-Null Count  Dtype 
---  ------            --------------  ----- 
 0   price             545 non-null    int64 
 1   area              545 non-null    int64 
 2   bedrooms          545 non-null    int64 
 3   bathrooms         545 non-null    int64 
 4   stories           545 non-null    int64 
 5   mainroad          545 non-null    object
 6   guestroom         545 non-null    object
 7   basement          545 non-null    object
 8   hotwaterheating   545 non-null    object
 9   airconditioning   545 non-null    object
 10  parking           545 non-null    int64 
 11  prefarea          545 non-null    object
 12  furnishingstatus  545 non-null    object
dtypes: int64(6), object(7)
memory usage: 55.5+ KB
```

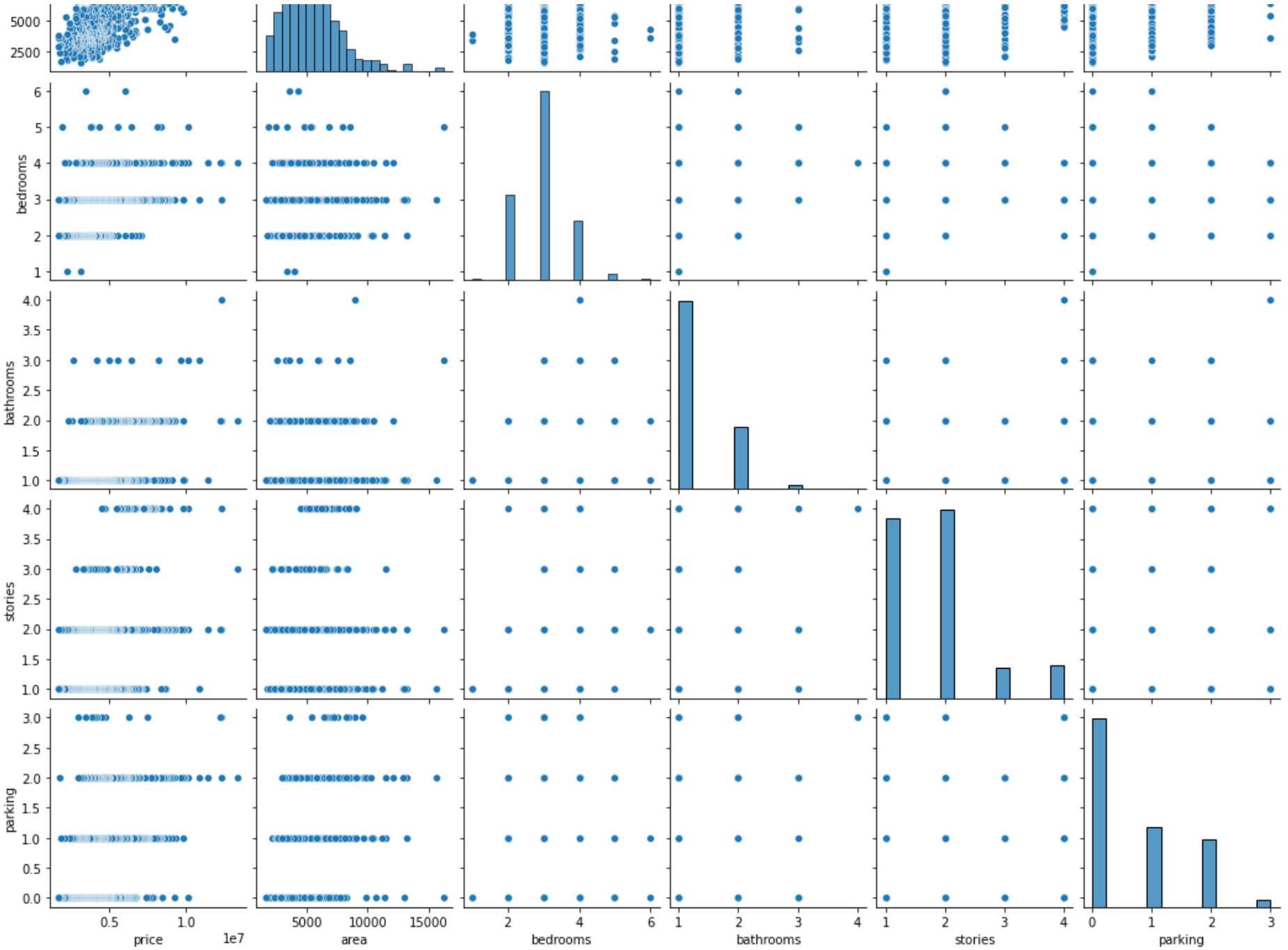
Out[13]:
```
(545, 13)
```

In [14]:
```
import matplotlib.pyplot as plt
import seaborn as sns
```

In [18]:
```
sns.pairplot(housing)
```

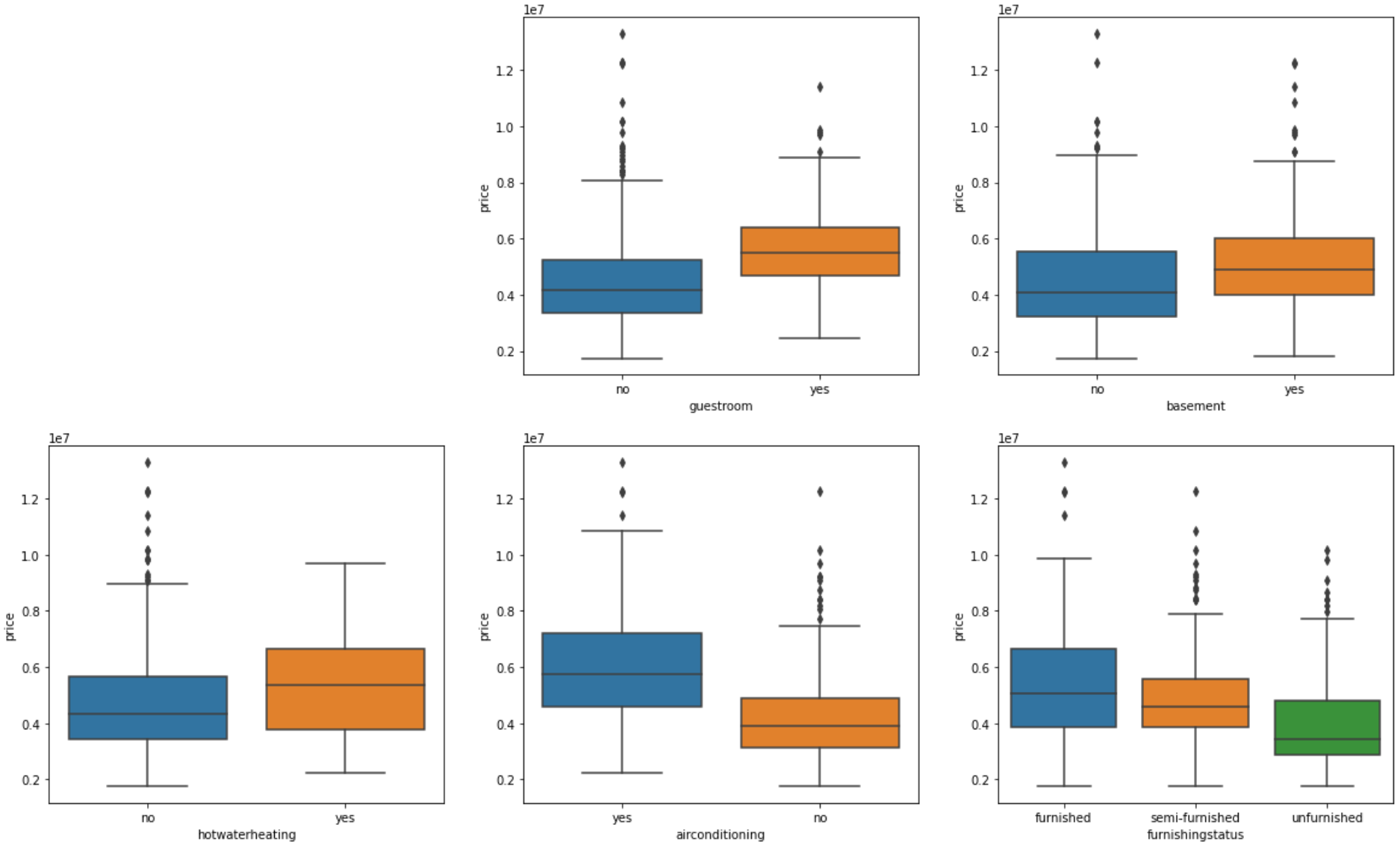
Out[18]:
```
<seaborn.axisgrid.PairGrid at 0x13e83372d90>
```




price
area
bedrooms
bathrooms
stories
parking
1e7

In [46]:
```
plt.figure(figsize=(20, 12))

plt.subplot(2,3,2)
sns.boxplot(x = 'guestroom', y = 'price', data = housing)
plt.subplot(2,3,3)
sns.boxplot(x = 'basement', y = 'price', data = housing)
plt.subplot(2,3,4)
sns.boxplot(x = 'hotwaterheating', y = 'price', data = housing)
plt.subplot(2,3,5)
sns.boxplot(x = 'airconditioning', y = 'price', data = housing)
plt.subplot(2,3,6)
sns.boxplot(x = 'furnishingstatus', y = 'price', data = housing)
plt.show()
```

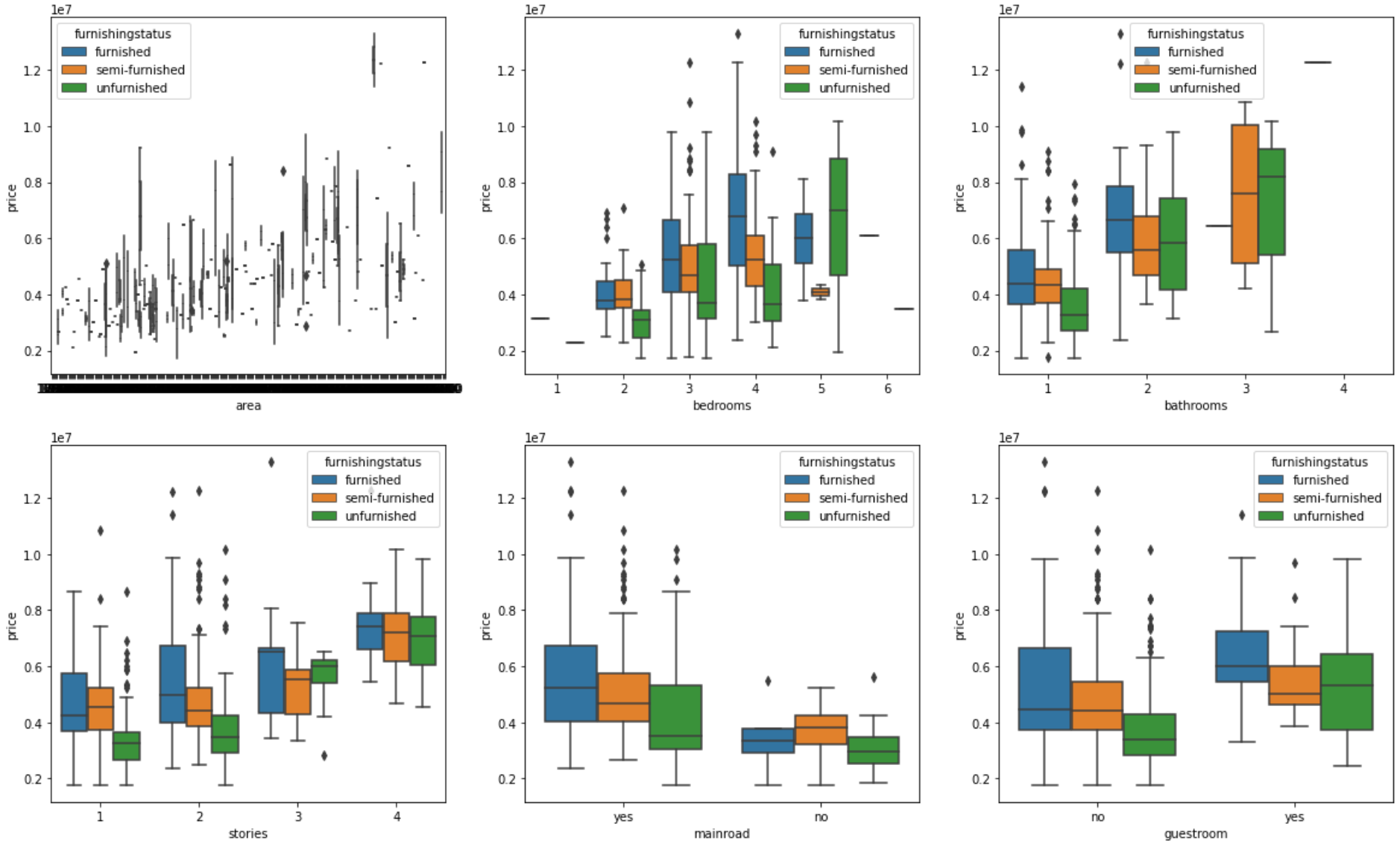


In [32]:
```
housing.columns[1:]
```

Out[32]:
```
Index(['area', 'bedrooms', 'bathrooms', 'stories', 'mainroad', 'guestroom',
       'basement', 'hotwaterheating', 'airconditioning', 'parking', 'prefarea',
       'furnishingstatus'],
      dtype='object')
```

In [ ]:

In [49]:
```
plt.figure(figsize=(20, 12))
counter = 1
for i in housing.columns[1:]:
    if(counter<7):
        plt.subplot(2,3,counter)
        sns.boxplot(x = i, y = 'price', data = housing, hue = 'furnishingstatus')
        counter = counter + 1
plt.show()
```



In [44]:
```
plt.show()
```

In [ ]: