In [1]:

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn.model_selection import train_test_split
from sklearn.datasets import load_boston
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error
```

In [2]:

```
boston =load_boston()
```

In [3]:

```
boston.keys()
```

Out[3]:

```
dict_keys(['data', 'target', 'feature_names', 'DESCR', 'filename'])
```

In [4]:

```
bs=pd.DataFrame(boston.data)
```

In [5]:

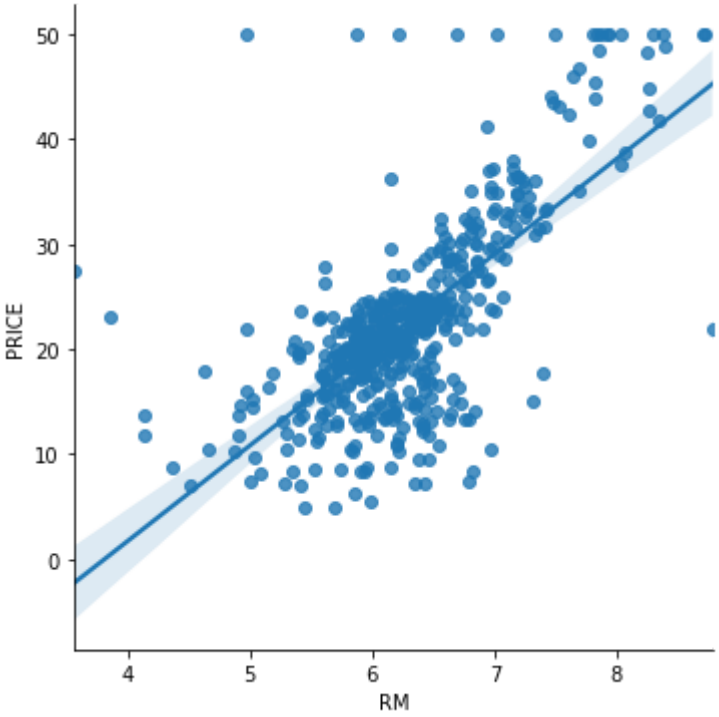
```
bs.columns=boston.feature_names
bs['PRICE']=boston.target
```

In [6]:

```
sns.lmplot(x='RM',y='PRICE',data=bs)
```

Out[6]:

```
<seaborn.axisgrid.FacetGrid at 0x22092721610>
```



In [7]:

```
x=pd.DataFrame(boston.data,columns=boston.feature_names)
y=pd.DataFrame(boston.target)
```

In [8]:

```
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.3)
```

In [9]:

```
lr=LinearRegression()
lr.fit(x_train,y_train)
```

Out[9]:

```
LinearRegression()
```

In [10]:

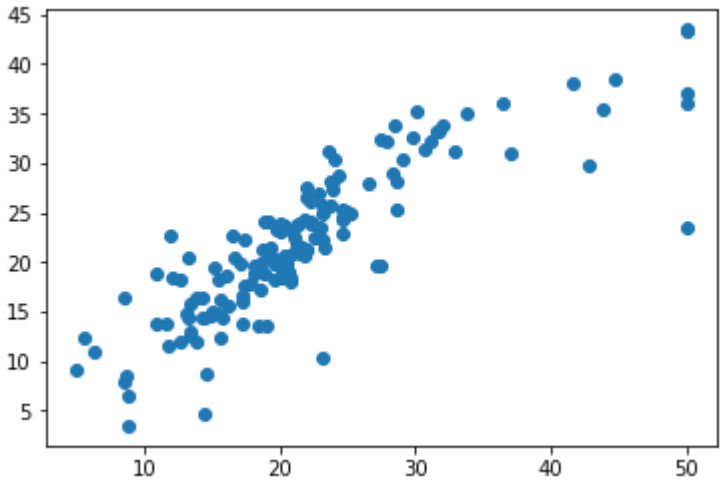
```
y_predict=lr.predict(x_test)
```

In [11]:

```
plt.scatter(y_test,y_predict)
```

Out[11]:

```
<matplotlib.collections.PathCollection at 0x22098658940>
```



In [12]:

```
mean_squared_error(y_test,y_predict)
```

Out[12]:

```
21.252034862106456
```

In [ ]:

```

```