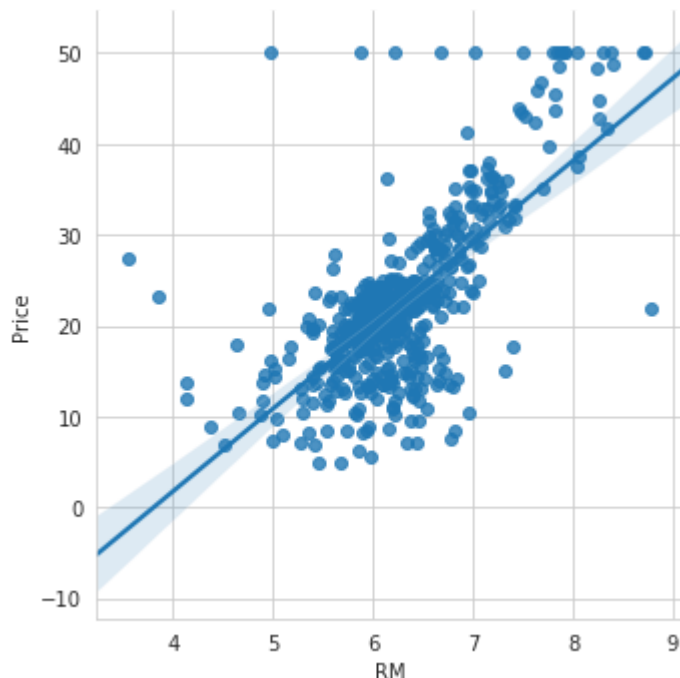


```

1 import numpy as np
2 import pandas as pd
3 from pandas import Series, DataFrame
4 import matplotlib.pyplot as plt
5 import seaborn as sns
6 sns.set_style('whitegrid')
7 %matplotlib inline
8 from sklearn.datasets import load_boston
9 # Load the housing dataset
10 boston = load_boston()
11 # reset data as pandas DataFrame
12 boston_df = DataFrame(boston.data)
13 # label columns
14 boston_df.columns = boston.feature_names
15 # Set price column for target
16 boston_df['Price'] = boston.target
17 # Using seabron to create a linear fit
18 sns.lmplot('RM', 'Price', data = boston_df)

```

↗ <seaborn.axisgrid.FacetGrid at 0x7f1eca4ce518>



```

1 # Set up X as median room values
2 X = boston_df.RM
3
4 # Use v to make X two-dimensional
5 X = np.vstack(boston_df.RM)
6
7 # Set up Y as the target price of the houses.
8 Y = boston_df.Price

```

```

1 # Create the X array in the form [X 1]

```

```

2 X = np.vstack([x, np.ones(len(x))]).T
3 X

```

```

↳ array([[6.575, 1.   ],
        [6.421, 1.   ],
        [7.185, 1.   ],
        ...,
        [6.976, 1.   ],
        [6.794, 1.   ],
        [6.03 , 1.   ]])

```

```

1 # Now get out m and b values for our best fit line
2 m, b = np.linalg.lstsq(X, Y)[0]

```

```

↳ /usr/local/lib/python3.6/dist-packages/ipykernel_launcher.py:1: FutureWarning: `r
To use the future default and silence this warning we advise to pass `rcond=None`
    """Entry point for launching an IPython kernel.

```

```

1 # First the original points, Price vs Avg Number of Rooms
2 plt.plot(boston_df.RM,boston_df.Price,'o')
3
4 # Next the best fit line
5 x= boston_df.RM
6 plt.plot(x, m*x + b,'r',label='Best Fit Line')

```

```

↳ [<matplotlib.lines.Line2D at 0x7f1ec7132fd0>]

```

