In [4]:

```python
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
from sklearn import datasets, linear_model


# Function for Fitting our data to Linear model
def linear_model_main(X_parameters,Y_parameters,predict_value):

        # Create linear regression object
        regr = linear_model.LinearRegression()
        regr.fit(X_parameters, Y_parameters)
        predict_outcome = regr.predict(predict_value)
        predictions = {}
        predictions['intercept'] = regr.intercept_
        predictions['coefficient'] = regr.coef_
        predictions['predicted_value'] = predict_outcome
        return predictions
# Function to show the resutls of  linear fit model
def show_linear_line(X_parameters,Y_parameters):
        # Create linear regression object
        regr = linear_model.LinearRegression()
        regr.fit(X_parameters, Y_parameters)
        plt.scatter(X_parameters,Y_parameters,color='blue')
        plt.plot(X_parameters,regr.predict(X_parameters),color='red',linewidth
=4)
        plt.xticks(())
        plt.yticks(())
        plt.show()

# Function to get data
def get_data(file_name):
        data = pd.read_csv(file_name)
        X_parameter = []
        Y_parameter = []
        for single_square_feet ,single_price_value in zip(data['square_feet'],
data['price']):
                X_parameter.append([float(single_square_feet)])
                Y_parameter.append(float(single_price_value))
        return X_parameter,Y_parameter
X,Y = get_data('input_data.csv')
# print X
# print Y
predictvalue = 700
result = linear_model_main(X,Y,predictvalue)
print ("Intercept value " , result['intercept'])
print ("coefficient " , result['coefficient'])
show_linear_line(X,Y)
print ("Predicted value: ",result['predicted_value'])
```
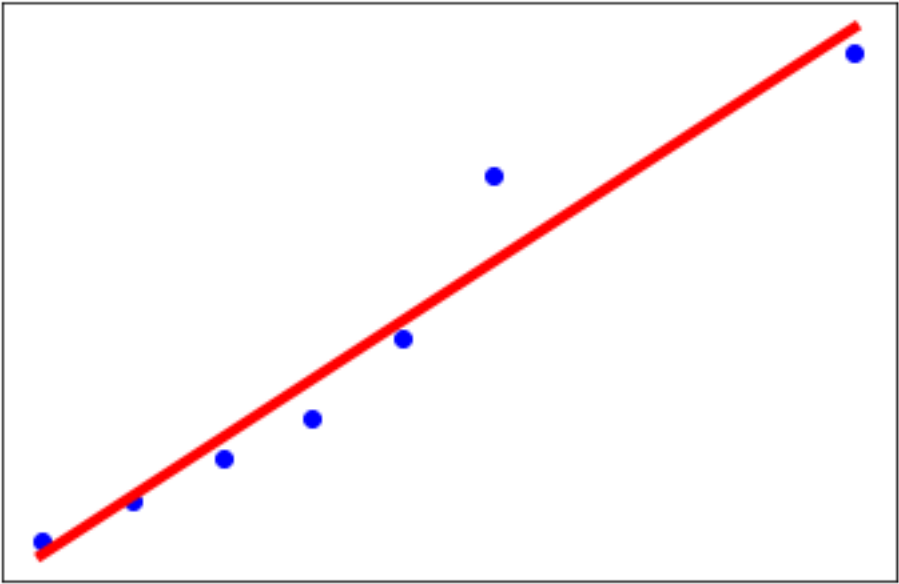
Intercept value 1771.8085106382969
coefficient [28.77659574]

Predicted value: [21915.42553191]