Predicting rent pricing in Mumbai

Problem Statement

- In Mumbai, people prefer to rent homes instead of buying as employees usually keep changing jobs.
- This model tries to predict rent pricing in the city of Mumbai.
- This model tries to find which factors have a major impact on the pricing.

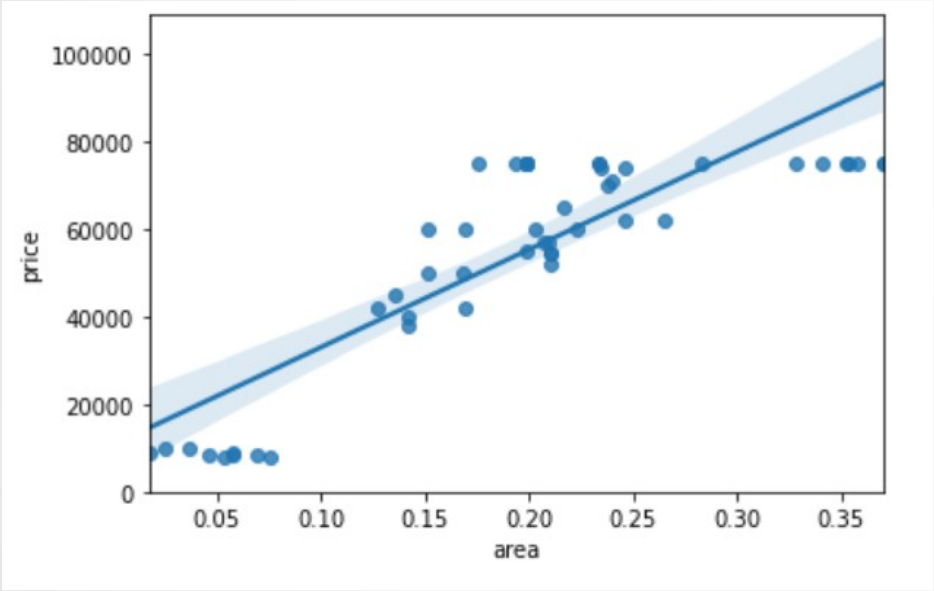
Dataset

- The dataset named ‘Flats for Rent in Mumbai’ is taken from Kaggle.
- The link of the dataset is https://www.kaggle.com/jedipro/flats-for-rent-in-mumbai
- The dataset contains 23 columns but only 8 of them are used in the study, namely, ‘area’, ‘bedroom_num’, ‘bathroom_num’, ‘floor_num’, ‘floor_count’, ‘locality’, ‘user_type’ and ‘furnishing’.

Data Preprocessing

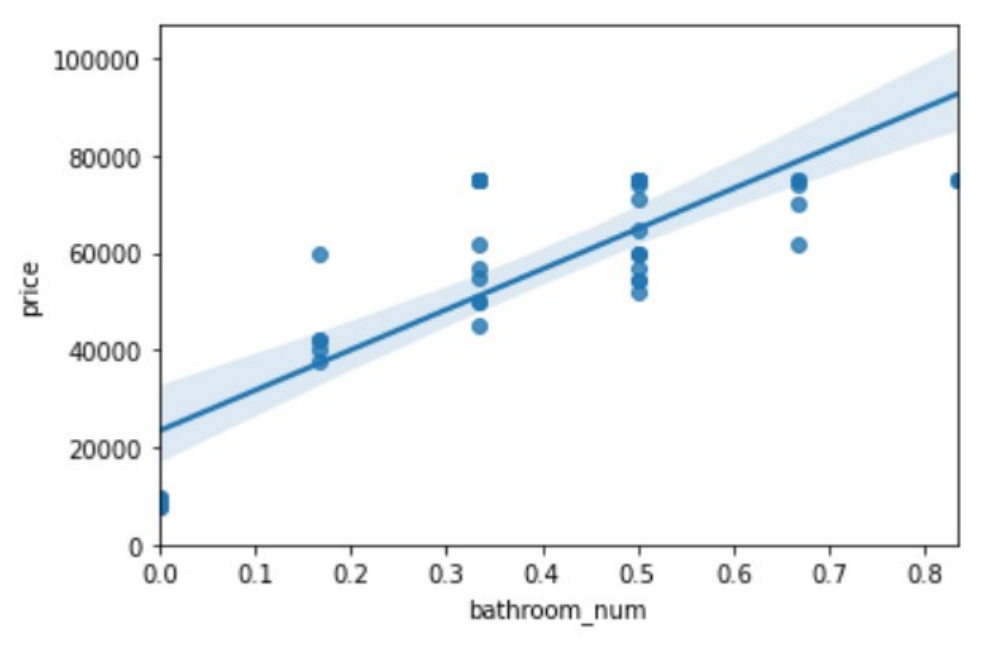
- Missing data is managed by dropping the entire row.
- The datatype of each column is set properly.
- Categorical data is handled using One-Hot Encoding.
- All continuous values are normalized so that the model is not biased.

Relation of Area and Price



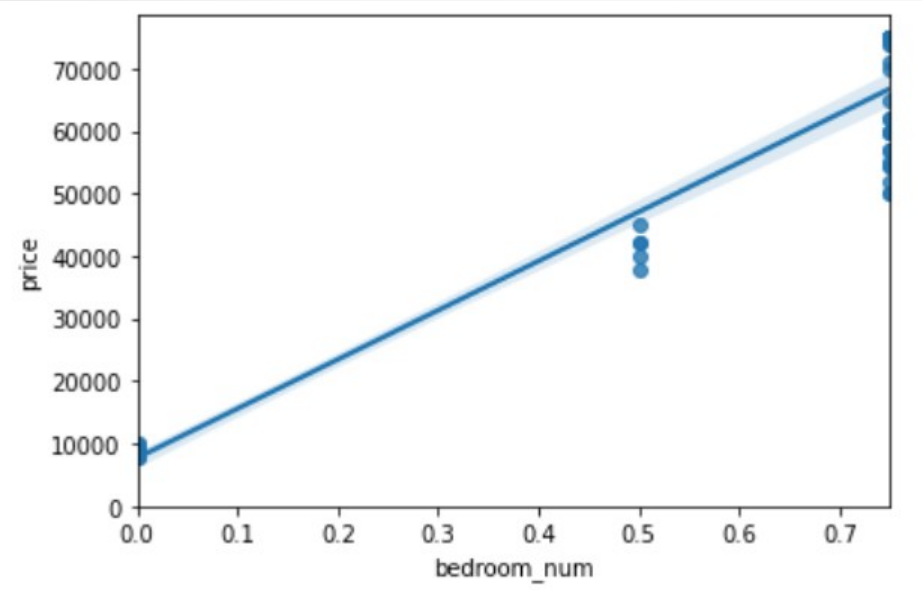
- There is positive linear correlation between area and price.
- This concludes that as area increases the price will also increase.

Relation of Bathroom_num and Price



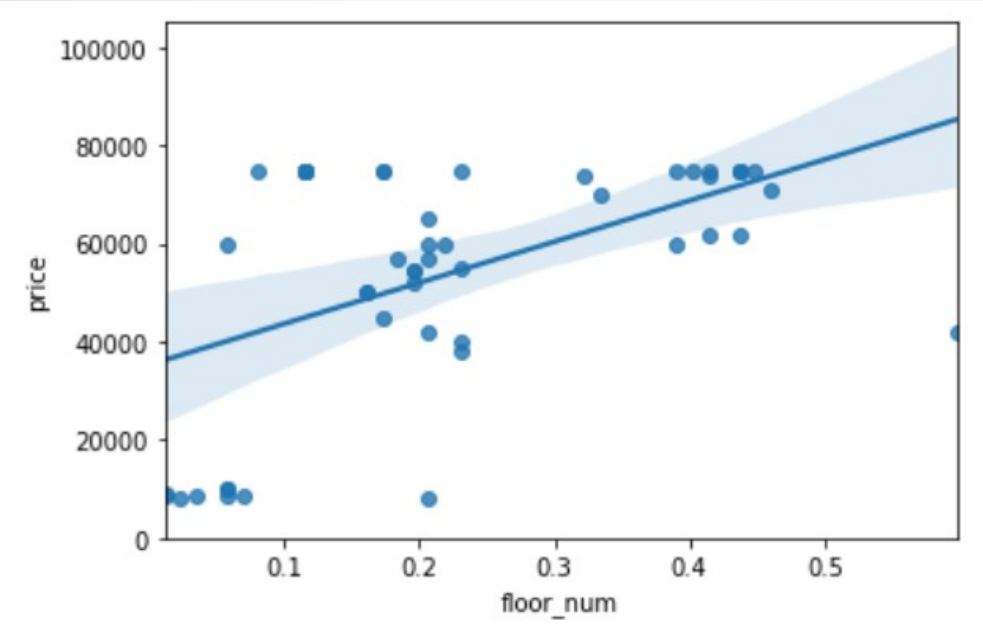
- There is positive linear correlation between bathroom_num and price.
- This concludes that as number of bathrooms increase the price will also increase.

Relation of Bedroom_num and Price



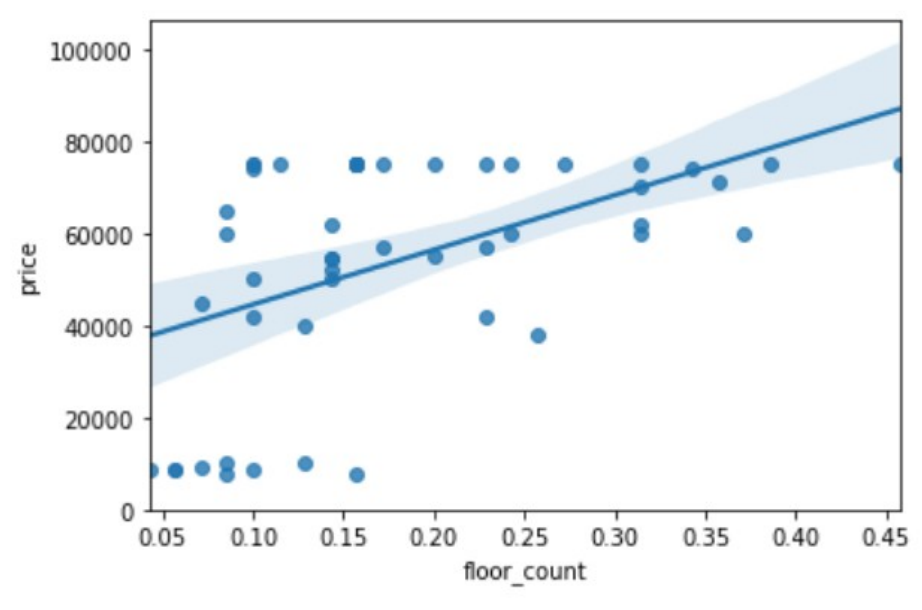
- There is positive linear correlation between bedroom_num and price.
- This concludes that as number of bedrooms increase the price will also increase.

Relation of Floor_num and Price



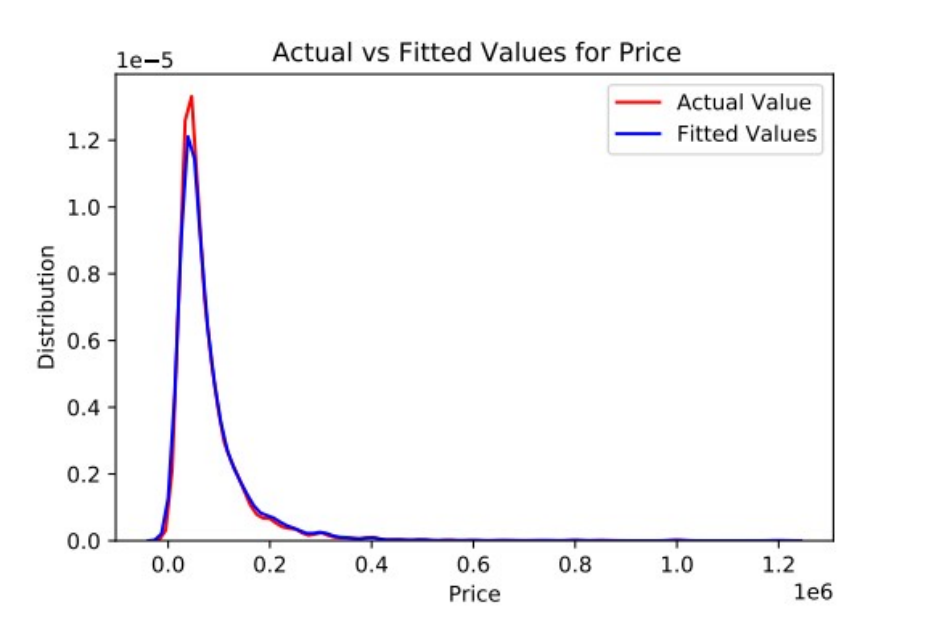
- There is a weak positive linear correlation between floor_num and price.
- This concludes that floor_num might not be relevant to predict price.

Relation of Floor_count and Price



- There is weak positive linear correlation between floor_count and price.
- This concludes that floor_count might not be a significant factor in predicting price.

Model Evaluation



- The datasplit for train/test is 60/40.
- The model fits the dataset with very high accuracy.

Conclusion

- The model deployed can predict rent pricing with the features selected.
- The study shows that the feature which has a major impact on the pricing is ‘Area’.
- The study reveals many insights on the factors affecting pricing which can be studied by anyone planning to rent a house in the city of Mumbai.