

# House Rent Prediction Analysis

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## Outline:

- Examining various potential factors that impact Indian house rental prices

## Questions:

- Is house size important for determining the rental price?
- Does the area type affect the rental price?
- Does city/location affect the price?
- Does the furnishing status affect the price?
- Does the point of contact affect the price?
- Does the number of bathrooms affect the price?
- Does population affect rental prices?

## Hypotheses:

- House size affects rental prices.
- Rentals measured by super area have lower rental prices than others.
- City affects rental prices.
- More furnished rental properties are more expensive.
- Rentals with the point of contact listed as an agent are more expensive.
- Rental price increases with the number of bathrooms.
- Population affects rental prices.

## Datasets:

### House Rent Prediction Dataset:

- A dataset obtained from Kaggle, containing information on rental properties within India (URL: <https://www.kaggle.com/datasets/iamsouravbanerjee/house-rent-prediction-dataset>)

### City API - API Ninjas:

- The API used to retrieve city populations (<https://api-ninjas.com/api/city>).

## Breakdown of tasks:

- Reading the csv file using Pandas
- Cleaning the data
- Removing outliers
- Plotting the data using matplotlib (continuous variables as scatter plots and categorical variables as bar charts)
- Retrieving city population info using API Ninjas - City API
- Statistical analysis using SciPy
- GitHub maintenance
- Present findings