



# Real Estate Price Prediction Project



## Bengaluru House Data

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# Abstract idea

What are the things that a potential home buyer considers before purchasing a house? The location, the size of the property, vicinity to offices, schools, parks, restaurants, hospitals or the stereotypical white picket fence? What about the most important factor — the price?



**Offices**



# Schools





Restaurants

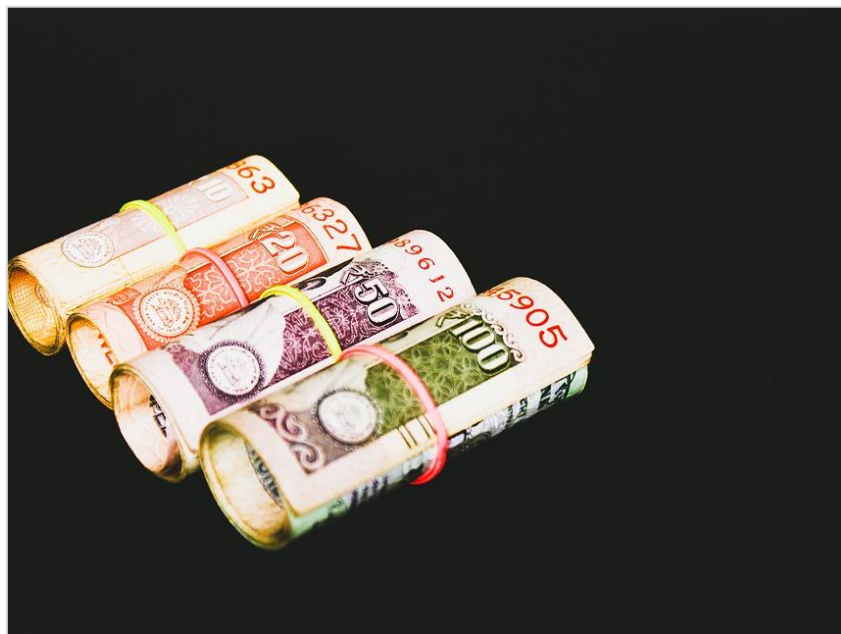


Parks



**Hostpital**





# Abstract idea

Potential homeowner, over 9,000 apartment projects and flats for sale are available in the range of ₹42-52 lakh, followed by over 7,100 apartments that are in the ₹52-62 lakh budget segment, says a report by property website Makaan. According to the study, there are over 5,000 projects in the ₹15-25 lakh budget segment followed by those in the ₹34-43 lakh budget category.

# Abstract idea

**Buying** a home, especially in a city like **Bengaluru**, is a tricky choice. While the major factors are usually the same for all metros, there are others to be considered for the **Silicon Valley** of India. With its help millennial crowd, vibrant culture, great climate and a slew of job opportunities, it is difficult to ascertain the price of a house in Bengaluru.

# DATASET

|   | area_type           | availability  | location                 | size      | society | total_sqft | bath | balcony | price  |
|---|---------------------|---------------|--------------------------|-----------|---------|------------|------|---------|--------|
| 0 | Super built-up Area | 19-Dec        | Electronic City Phase II | 2 BHK     | Coomee  | 1056       | 2.0  | 1.0     | 39.07  |
| 1 | Plot Area           | Ready To Move | Chikka Tirupathi         | 4 Bedroom | Theanmp | 2600       | 5.0  | 3.0     | 120.00 |
| 2 | Built-up Area       | Ready To Move | Uttarahalli              | 3 BHK     | NaN     | 1440       | 2.0  | 3.0     | 62.00  |
| 3 | Super built-up Area | Ready To Move | Lingadheeranahalli       | 3 BHK     | Soiewre | 1521       | 3.0  | 1.0     | 95.00  |
| 4 | Super built-up Area | Ready To Move | Kothanur                 | 2 BHK     | NaN     | 1200       | 2.0  | 1.0     | 51.00  |

```
[ ] House_data.shape
```

```
↳ (13320, 9)
```



# Data Statistical Analysis

```
House_data.describe()
```

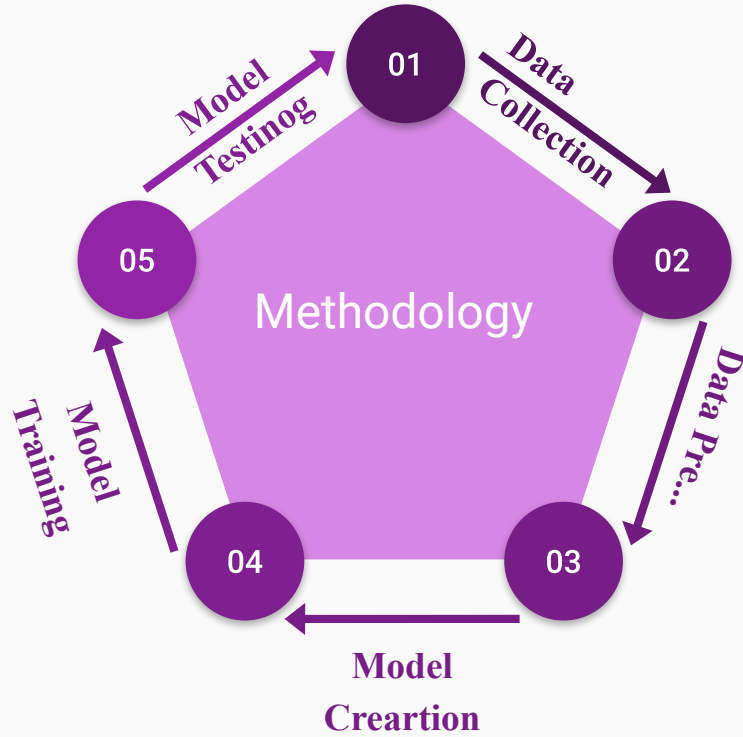
|              | bath         | balcony      | price        |
|--------------|--------------|--------------|--------------|
| <b>count</b> | 13247.000000 | 12711.000000 | 13320.000000 |
| <b>mean</b>  | 2.692610     | 1.584376     | 112.565627   |
| <b>std</b>   | 1.341458     | 0.817263     | 148.971674   |
| <b>min</b>   | 1.000000     | 0.000000     | 8.000000     |
| <b>25%</b>   | 2.000000     | 1.000000     | 50.000000    |
| <b>50%</b>   | 2.000000     | 2.000000     | 72.000000    |
| <b>75%</b>   | 3.000000     | 2.000000     | 120.000000   |
| <b>max</b>   | 40.000000    | 3.000000     | 3600.000000  |

## Null values

```
↳ area_type      0
   availability   0
   location       1
   size           16
   society        5502
   total_sqft     0
   bath           73
   balcony        609
   price          0
   dtvne: int64
```



# Methodology

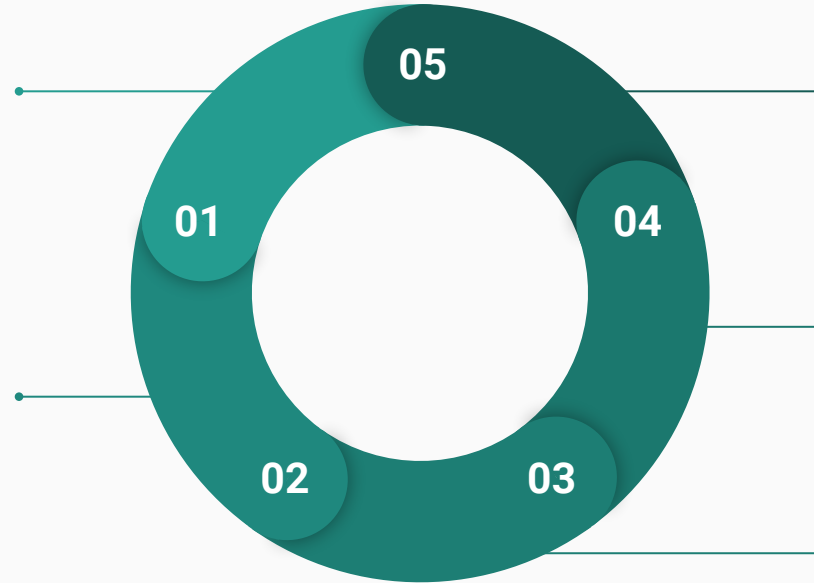




# Bengaluru House Data

## Data Preprocessing

- ❑ Null value handling
- ❑ Categorical Data Handling
- ❑ Feature Selection



## Model Testing

20% DATA

## Model Training

80% DATA

## Model Creation

- ❑ Linear Regression
- ❑ Lasso Regression
- ❑ DecisionTree Regression