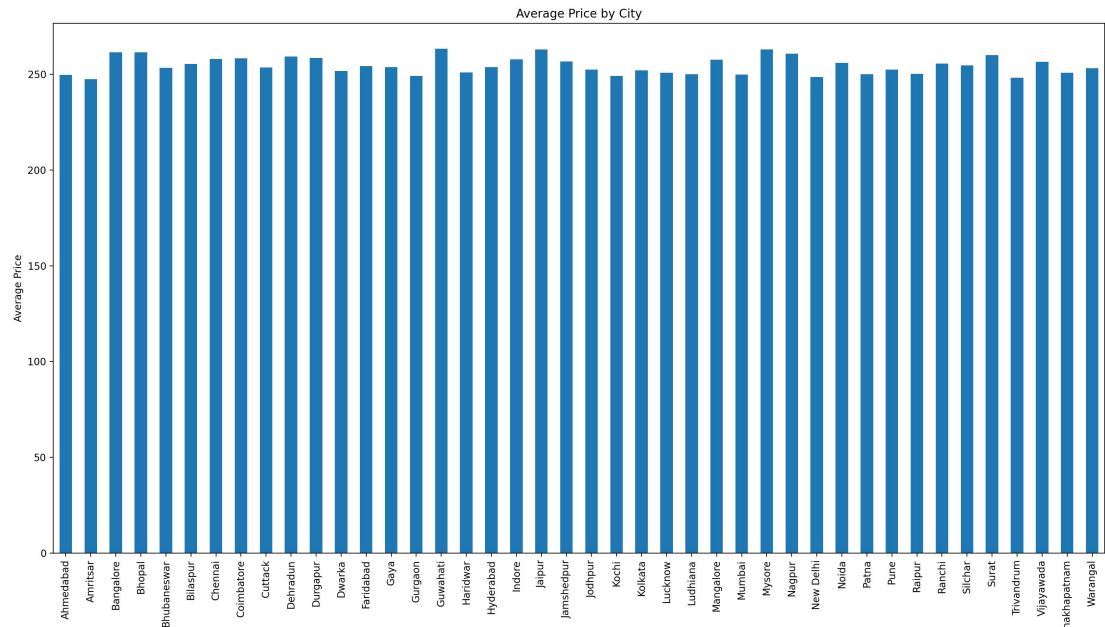# Project Insights

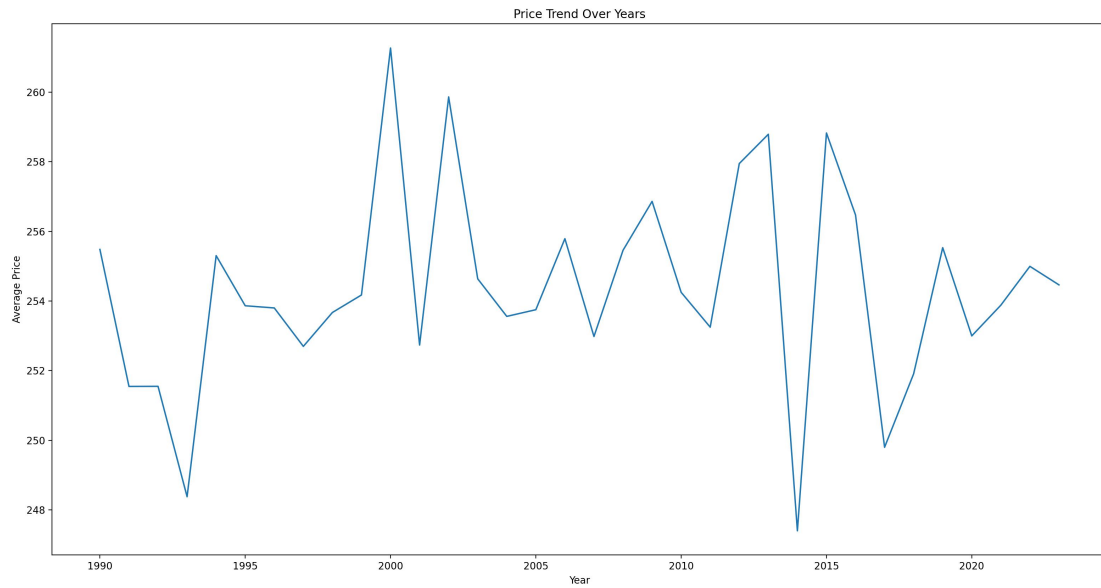## 1. Average Price by City(Bar chart)

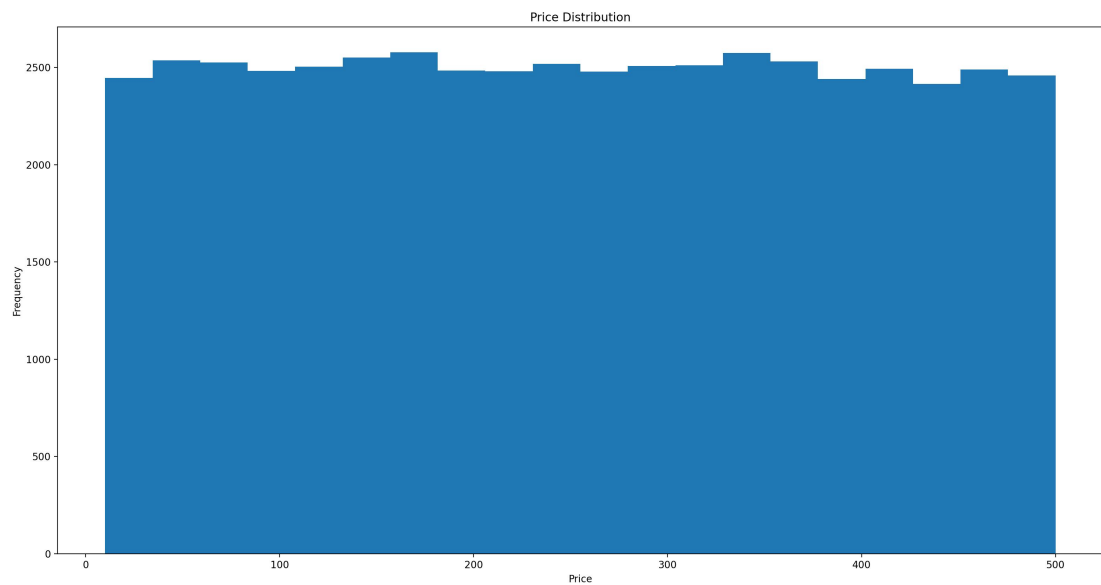
- The Average Price by City chart shows that prices across cities are very close to each other, with no extreme highs or lows.
- This suggests the market is balanced, not dominated by one single city.
- Investors don't face high risk due to location, and diversification across cities is possible.
- The market shows price consistency across cities, indicating stable demand nationwide.

2.Price Trends Over the Years(Line Chart)

- The Price Trend Over Years shows ups and downs, but no sharp long-term spike or crash.
- Prices fluctuate within a narrow range, indicating a mature and steady market.
- This is low-volatility real estate, suitable for long-term investors, not short-term speculators.
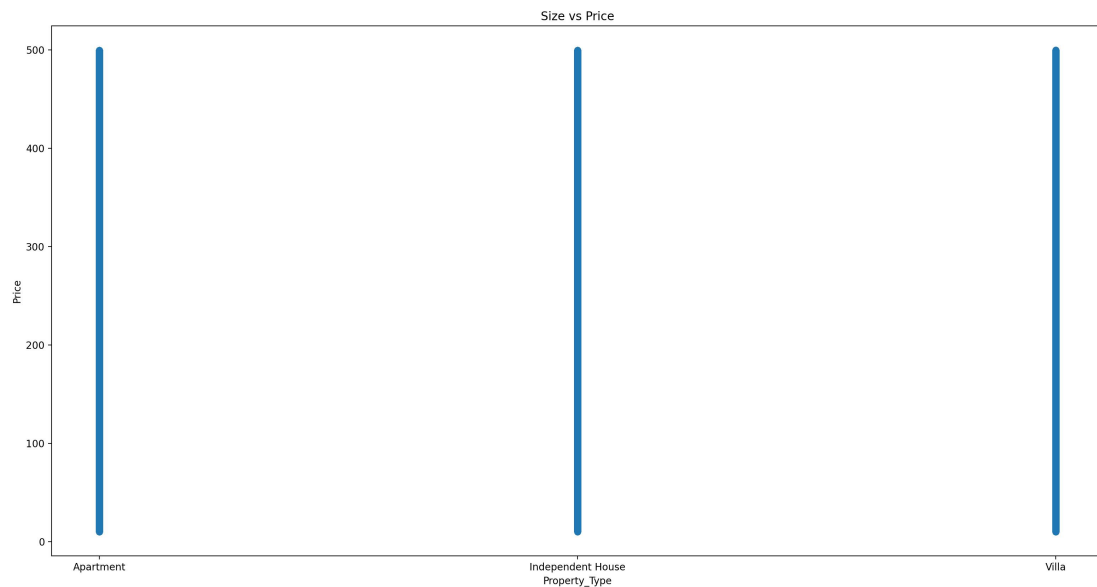- Property prices fluctuate year to year but remain stable over time, showing a mature market.

Price Trend Over Years

3.Price distribution(Histogram)

Price Distribution

- The Price Distribution chart shows that properties are spread almost evenly across price ranges.
- There is no heavy concentration in only low-price or high-price properties. Buyers have options at every budget level, and demand exists across segments.
- The market serves a wide range of buyers, from affordable to premium segments.
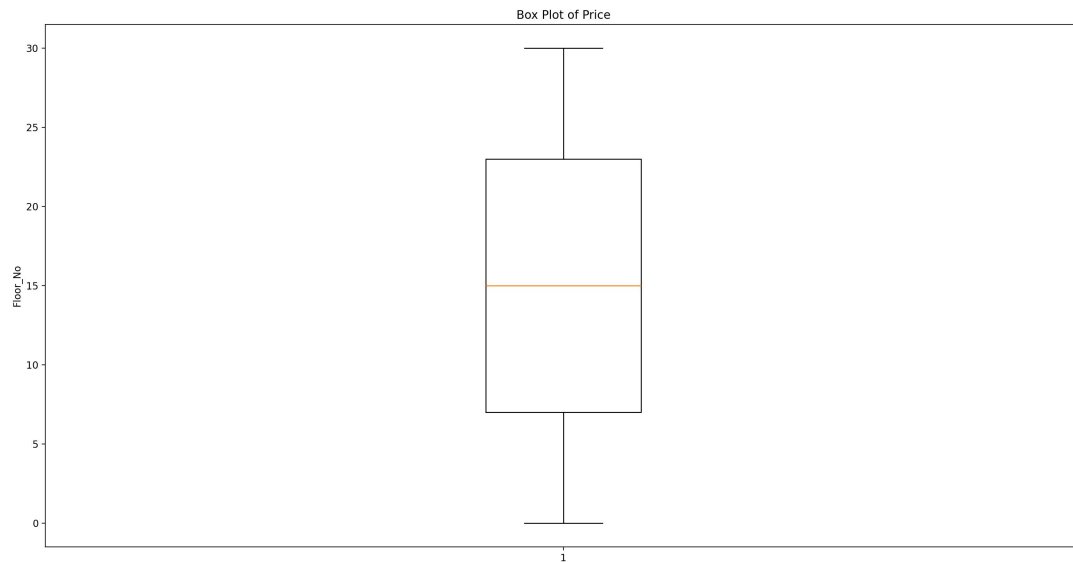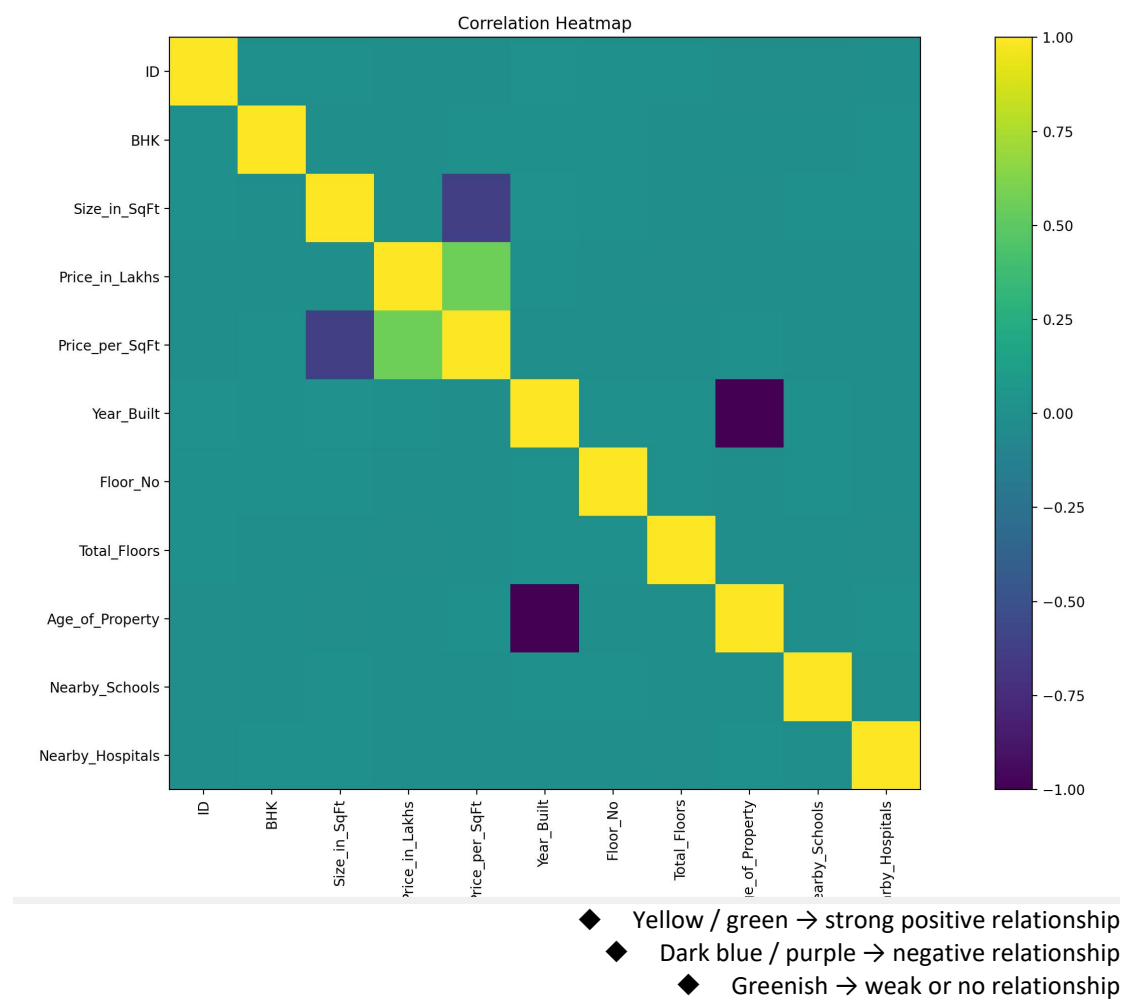
4.Size vs Price(Scotter Plot)

- In the Size vs Price by Property Type chart, Apartments, Independent Houses, and Villas show similar price levels.
- This means price differences depend more on location and market conditions, not just property type.
  Bigger or premium property types do not always guarantee higher prices.
- Property type alone doesn't drive price—location and demand play a bigger role

5.Box Plot (Floor-wise Distribution)

- Median floor is around the middle floors (approximately 4–5).
- 50% of properties lie between lower-mid floors (around 2 to 7).
- Minimum floor is ground / very low floor.
- Maximum floor goes up to higher floors (around 10+).

Box Plot of Price

6.Correlation Heat map

Correlation Heatmap

◆ Yellow / green → strong positive relationship
◆ Dark blue / purple → negative relationship
◆ Greenish → weak or no relationship

- Size_in_Sqft ↔ Price_in_Lakhs (Positive correlation)

- <mark>Bigger homes cost more.</mark>
- This is the strongest and most reliable factor affecting price.

- price_per_Sqft ↔ Price_in_Lakhs (Positive)

- Higher price per sqft increases total price.