Atul Kumar

Gurgaon Real estate Analysis Dashboard

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Challenge
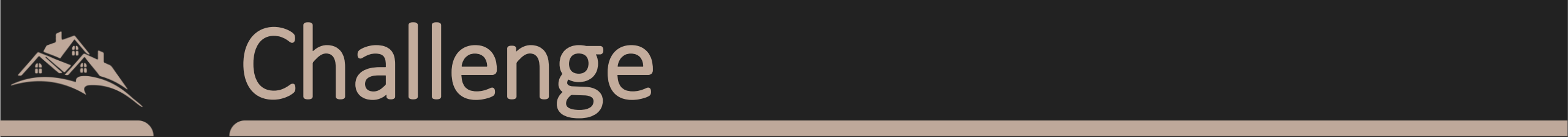
Gurgaon's real estate market exhibits a highly dynamic and evolving pattern, marked by significant variability in property price trends, heterogeneous demand distribution across regions, and a spectrum of investment opportunities. Buyers and investors frequently encounter challenges in analyzing and pinpointing optimal properties efficiently, leading to extended decision-making timelines and a potential loss of high-value opportunities.

Solution and Impact

Solution: I developed a user-friendly Property Analysis Dashboard using Streamlit. The dashboard shows area-wise price trends, suggests suitable societies, predicts prices based on user-selected features, and provides price ranges for different apartment sizes.

Impact: The dashboard helps users save up to 30% of their time in property searches by offering quick insights, making it easier to spot good deals and make better decisions.

Data Source: Web scraped 3000+ property listings from popular sites like 99acres and Magic Bricks using Selenium and Beautiful Soup
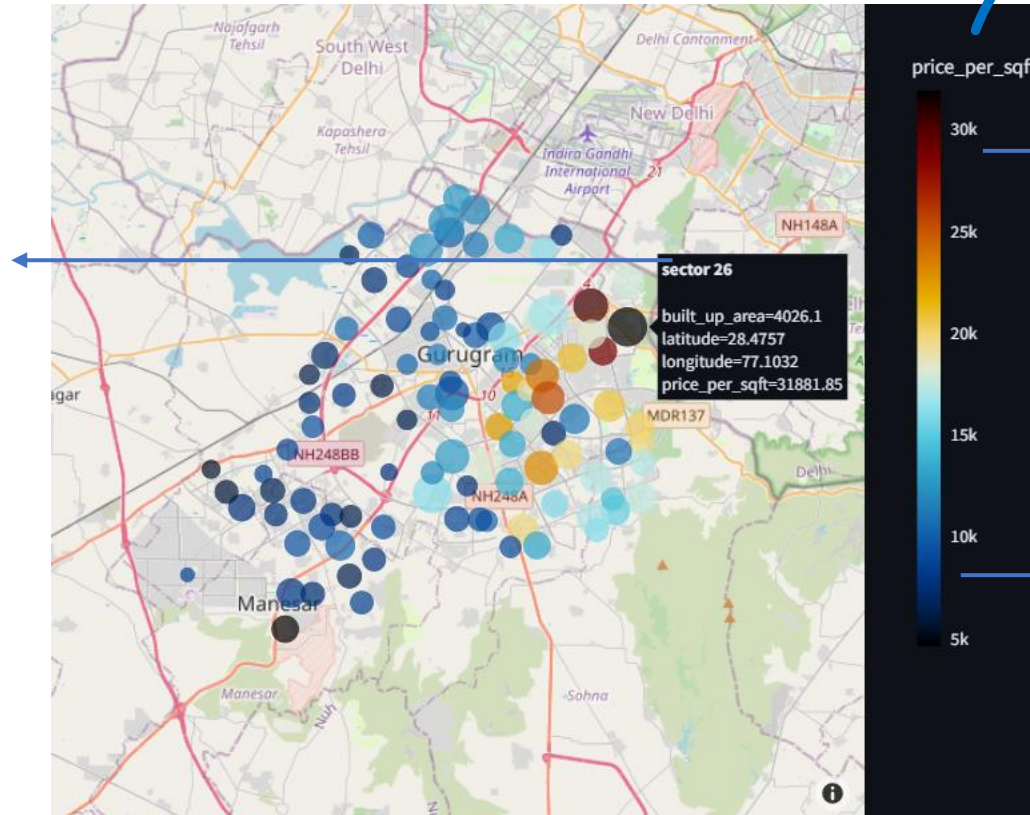
Dashboard

Geo Map

Color bar representing the **price per sqft range** for each area of Gurgaon

Hovering over the bubble reveals the **price per sqft, sector**, and **location**

Highest Price per Sqft is around > **₹30,000** (**Quite Expensive**)

The lowest Price per Sqft is around **₹5,000**

sector 26

built_up_area=4026.1
latitude=28.4757
longitude=77.1032
price_per_sqft=31881.85

price_per_sqft

30k
25k
20k
15k
10k
5k

Available Amenities

Select a **Sector** to view a list of all **available amenities** in the properties listed online

The large font size for **'Fire Alarm'** indicates its wide availability in **Sector 47**

The **larger** the **text**, the more frequently the amenity is listed in the Selected Area

Area vs Price

Select Property Type (House | Flat)

agePossession=Relatively New
built_up_area=7444
price=15
bedRoom=5

The y-axis displays the **Price** in **Crores**

The x-axis shows the **Total Built Up Area**

The color bar shows the **number of bedrooms**, with lighter indicating more

Use this slider to select the **Property Age**

BHK Distribution

Select Sector

Around **40%** of houses in **Sector 67A** are **3 BHK**

Pie chart displaying the distribution of different **Property Sizes**
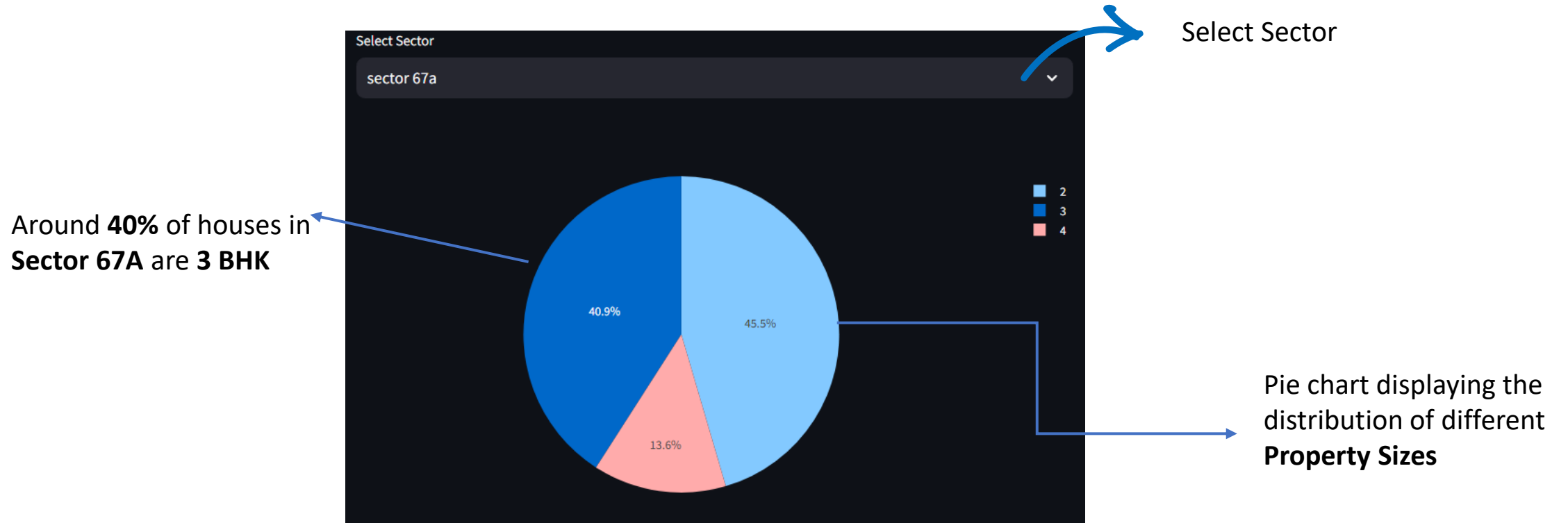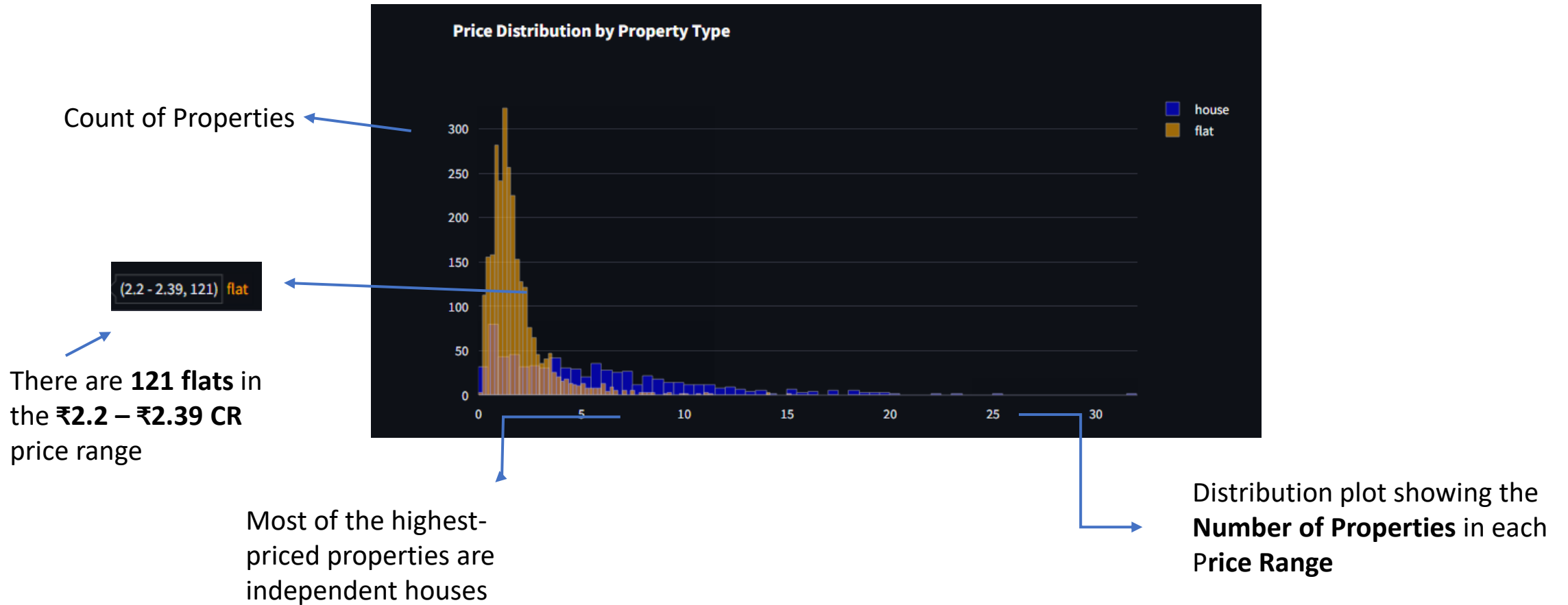
BHK Price Range Comparison

This shows that the priciest 2 BHK in the selected sector was around ₹10Cr

Box plot showing **Price Ranges** for each **Property Size**
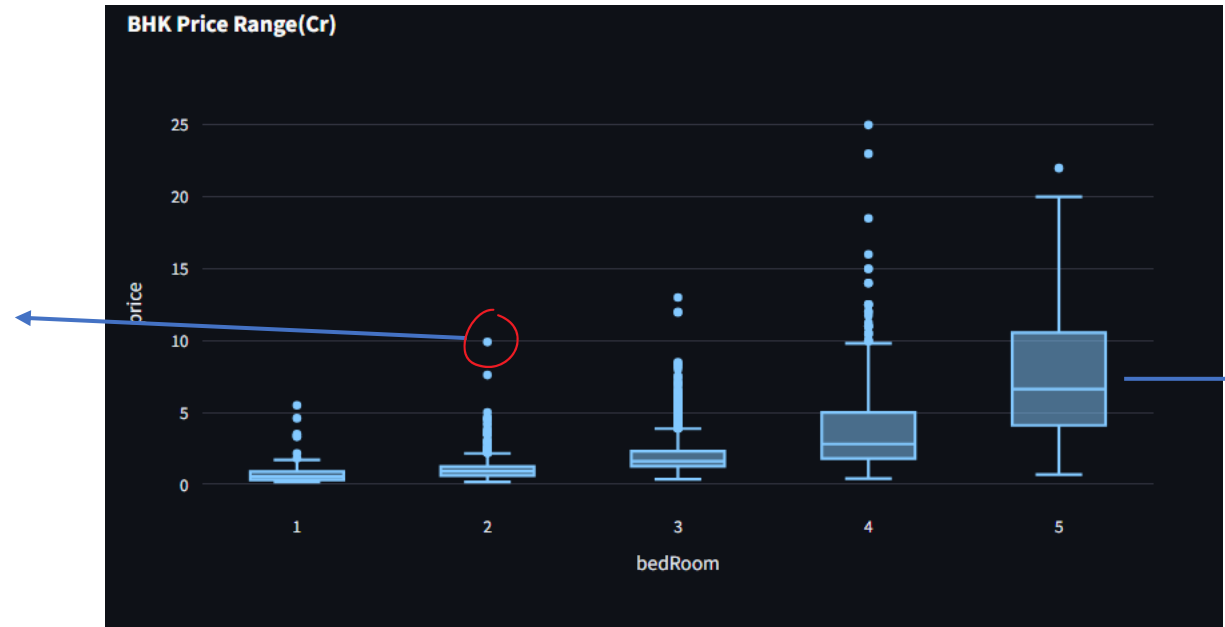
Price Distribution by Property Type

Count of Properties

(2.2 - 2.39, 121) flat

There are **121 flats** in the **₹2.2 – ₹2.39 CR** price range

Most of the highest-priced properties are independent houses

Distribution plot showing the **Number of Properties** in each **Price Range**

Price Range Prediction

Helps buyers estimate the price range of properties based on their needs

Gurgaon Real Estate Price Predictor

Enter you inputs

Property Type

flat

Sector

sector 103

Average Price change for sector 103 is: ₹-4114

Number of bedrooms

1.0

Average Price increase Per bedrooms: ₹ 106961

Number of bathrooms

1.0

Number of Balconies

0

Property Age

Moderately Old

Built Up Area

1100

Predict

The flat's price falls within the range of approximately 0.62 Crores to 1.06 Crores.

Select Property Type, Location and Amenities

Price change compared to the average price across **Gurgaon**

Uses **Random Forest Regressor** with **90%+ accuracy**, trained on **3000+** properties

The model predicts the property price within a **90% prediction interval**

Similar Society Recommendation

Recommends Society Based on the Selected Location and Recommend Apartments in the selected Society

Multiple apartments are recommended for the selected society

Select Location and Radius

Location

Aarvy Hospital

Radius in Kms

30

Search

Ireo Victory Valley : 2.5 Kms

Bestech Park View Grand Spa : 3.2 Kms

Emaar MGF Emerald Floors Premier : 3.9 Kms

International City by SOBHA Phase 2 : 8.8 Kms

Recommend Apartments

Select an Apartment

Choose an option

Ireo Victory Valley

Bestech Park View Grand Spa

Emaar MGF Emerald Floors Premier

International City by SOBHA Phase 2

Select a **landmark** and **radius** to recommend nearby societies

This option **autofills** with the previously recommended societies

Recommend Apartments
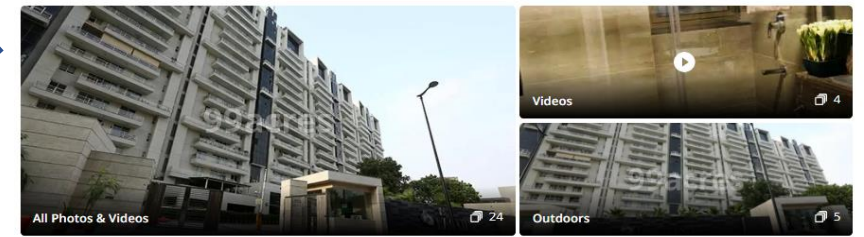
Select an Apartment

Bestech Park View Grand Spa

Recommend

Recommended Apartments:

La Lagune : Link

Whiteland The Aspen : Link

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Home > Projects in Gurgaon > Golf Course Road > Sector 54 Gurgaon > La Lagune

La Lagune ♡

Sector 54, Gurgaon

View Number

RERA Status | No Brokerage | 3D Floor Plans Available | +50 Top Facilities

CONSTRUCTION STATUS

Ready To Move

Since Sep, 2013

Select a **link** to visit the buy page on 99acres or Magic Bricks for **more information**

Project Summary

- Developed a Streamlit-based dashboard using Python, incorporating Pandas, NumPy, and Plotly to simplify the property search process for buyers in Gurgaon.

- This project highlights my proficiency in applying data analysis, machine learning, and data visualization techniques to address real-world challenges.

- It reflects my ability to derive data-driven insights that enhance decision-making, a capability I am excited to contribute to a data analyst role.