## Chart 1

**Pages**

**Filters**
- Area Name

**Marks**
- Automatic
- Colour
- Size
- Label
- Detail
- Tooltip

**Columns:** AVG(Selling Price)
**Rows:** Area Name

💠 **Bar Chart – Average Selling Price by Area**

Area Name ⇊
- Al Safouh Second
- Palm Jumeirah
- Burj Khalifa
- Al Wasl
- Zaabeel Second
- Jumeirah First
- Al Kheeran
- Um Hurair Second
- Al Khairan First
- Al Kifaf
- Madinat Dubai Alme...
- Marsa Dubai
- Palm Deira
- Al Safouh First
- Al Jadaf
- Business Bay
- Hadaeq Sheikh Moh...
- Al Merkadh
- Al Thanyah Third
- Al Satwa
- Al Thanyah First
- Nad Al Shiba First
- Al Hebiah First

X-axis: 0K, 500K, 1000K, 1500K, 2000K, 2500K, 3000K, 3500K, 4000K, 4500K, 5000K, 5500K

Avg. Selling Price ⇊

Caption

Helps individual buyers compare average prices across neighborhoods.

## Chart 2

**Pages**

**Filters**
- Area Name

**Marks**
- Automatic
- Colour
- Size
- Label
- Detail
- Tooltip

**Columns:** AVG(Selling Price)
**Rows:** Bedrooms

🏠 **Bar Chart – Average Price by Bedroom Count**

Bedroo.. ⇊
- Store
- Single Room
- Studio
- 1 B/R
- Office
- 2 B/R
- Shop
- 3 B/R
- PENTHOUSE
- GYM
- 4 B/R
- 5 B/R
- 7 B/R
- 6 B/R
- 9 B/R
- 8 B/R

X-axis: 0M, 2M, 4M, 6M, 8M, 10M, 12M, 14M, 16M, 18M, 20M, 22M, 24M, 26M, 28M, 30M, 32M, 34M, 36M, 38M, 40M, 42M, 44M

Avg. Selling Price ⇊

Area Name
- ☑ (All)
- ☑ Al Barsha South F...
- ☑ Al Barsha South F...
- ☑ Al Barshaa South ...
- ☑ Al Barshaa South ...
- ☑ Al Hebiah First
- ☑ Al Hebiah Fourth
- ☑ Al Hebiah Second
- ☑ Al Jadaf
- ☑ Al Khairan First
- ☑ Al Kheeran
- ☑ Al Kifaf
- ☑ Al Merkadh
- ☑ Al Safouh First
- ☑ Al Safouh Second
- ☑ Al Satwa
- ☑ Al Thanyah Fifth
- ☑ Al Thanyah First
- ☑ Al Thanyah Third
- ☑ Al Warsan First
- ☑ Al Wasl
- ☑ Burj Khalifa
- ☑ Business Bay
- ☑ Dubai Investment...
- ☑ Hadaeq Sheikh M...
- ☑ Jabal Ali First
- ☑ Jabal Ali Industri...
- ☑ Jumeirah First
- ☑ Madinat Dubai Al...
- ☑ Marsa Dubai

Caption

Helps buyers understand what they can afford based on bedroom size.

## Undervalued Properties by Area and Bedroom Type



**Caption**

This highlight table visualizes the average price gap between predicted and actual selling prices for undervalued properties across different areas and bedroom types. Darker shades represent higher undervaluation, helping individual buyers identify where they can get the best value based on bedroom preferences and location.

## 📈 Line Chart – Predicted Price by Area



**Caption**

Shows where prices are expected to rise

Pages

Columns | Selling Price
Rows | Predicted Price RF

Filters
- Cluster
- Valuation Status
- Property Sub Ty..
- Area Name

Marks

Shape

Colour | Size | Label
Detail | Tooltip | Shape

- Cluster
- ATTR(Area Na..
- ATTR(Bedroo..
- SUM(Price Gap)

## 🧠 Scatter Plot – Actual vs Predicted Price (with Color by Cluster)



Property Sub Type
- ☑ (All)
- ☑ Flat
- ☑ Gymnasium
- ☑ Hotel Apartment
- ☑ Hotel Rooms
- ☑ Office
- ☑ Shop
- ☑ Show Rooms
- ☑ Store

Valuation Status
- ☑ (All)
- ☑ Overvalued
- ☑ Undervalued

Cluster
0     2

Cluster
0     2

Caption

This scatter plot compares actual and predicted property prices, with each point representing a property and color-coded by cluster. The clusters represent market segments grouped by property size, price, and parking capacity. Points close to the diagonal line reflect accurate model predictions, while points significantly above or below indicate potential underpricing or overpricing. Investors can use these clusters to identify emerging or undervalued market segments.

---

Pages

Columns | Cluster
Rows | AVG(Price Gap)

Filters
- Area Name

Marks

Bar

Colour | Size | Label
Detail | Tooltip

- Cluster

## 🧩 Bar Chart – Investment Opportunity by Cluster



Cluster
0     2

Caption

This bar chart displays the average price gap between predicted and actual property prices for each market cluster. Clusters with higher average price gaps represent segments where market listings are undervalued, indicating strong investment potential.

**Histogram – Distribution of Property Prices**

Selling Price (bin)

**Caption**

This histogram displays the distribution of properties by selling price. The vast majority of listings fall under AED 1 million, indicating a highly saturated low-to-mid-range market. Higher-end properties become increasingly scarce, forming a long-tail luxury segment.



**Tree Map – Properties by Sub-Type**

AVG(Selling Price)

62,737          7,094,669

**Caption**

This tree map displays property sub-types sized and colored by their average selling price. It enables quick market segmentation, helping investors and buyers identify which types command higher market value and which ones dominate the listing volume.

**Pages**

**Columns**

**Rows**

**Filters**

Property Sub Ty..

Area Name

**Marks**

Pie

Colour | Size | Label

Detail | Tooltip | Angle

Property Sub T..

SUM(Selling .. △

Property Sub T..

SUM(Selling .. △

## Pie – Property Sub Type Share

Show Rooms
0.00%

Hotel Apartment
6.13%

Flat
83.57%

**Property Sub Type**
- ☑ (All)
- ☑ Flat
- ☑ Gymnasium
- ☑ Hotel Apartment
- ☑ Hotel Rooms
- ☑ Office
- ☑ Shop
- ☑ Show Rooms
- ☑ Store

**Property Sub Type**
- ■ Flat
- ■ Gymnasium
- ■ Hotel Apartment
- ■ Hotel Rooms
- ■ Office
- ■ Shop
- ■ Show Rooms
- ■ Store

**Caption**

Apartments make up over 60% of all listings, showing dominance in availability.

**Pages**

**Columns**

**Rows**

**Filters**

Area Name

**Marks**

Automatic

Colour | Size | Text

Detail | Tooltip

MAX(Predicted..

**Max Predicted Property Price:- AED135,075,384**

**Pages**

**Columns**

**Rows**

**Filters**

Valuation Status:...

Area Name

**Marks**

Automatic

Colour  Size  Text

Detail  Tooltip

AVG(Price Gap)

**Average Price Gap:- AED 284,127**

Caption

**On average, properties are slightly overvalued by AED 3,877 based on the Random Forest model's prediction.**

---

**Filters**

Valuation Status:...

Area Name

**Marks**

Automatic

Colour  Size  Text

Detail  Tooltip

CNT(Valuation ..

**Total Number of Undervalued properties: 263,667**

# 💸 Buyer Dashboard – "Find the Best Homes for Your Budget"

These are areas and bedroom types where ML-predicted prices are higher than actual selling prices — indicating potential deals

**Total Number of Undervalued properties: 263,667**

## Undervalued Properties by Area and Bedroom Type

*Bedrooms columns: 1 B/R, 2 B/R, 3 B/R, 4 B/R, 5 B/R, 6 B/R, 7 B/R, 9 B/R, GYM, Office, PENTHOUSE, Shop, Single Room, Store, Studio*

*Area Name rows: Burj Khalifa, Marsa Dubai, Al Safouh Second, Al Hebiah First, Business Bay, Palm Jumeirah, Al Thanyah First, Um Hurair Second, Al Thanyah Third, Dubai Investment P..., Jabal Ali First, Al Thanyah Fifth, Al Barsha South Fou...*

## 💸 Bar Chart – Average Selling Price by Area



*Area Name: Al Safouh Second, Palm Jumeirah, Burj Khalifa, Al Wasl, Zaabeel Second, Jumeirah First, Al Kheeran, Um Hurair Second, Al Khairan First, Al Kifaf, Madinat Dubai Alme...*

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# 💸 Investor Dashboard – Where to Invest for Maximum ROI

This dashboard helps investors identify undervalued market clusters and asset types based on ML-generated predicted values.

**Max Predicted Property Price:- AED135,075,384**

**Average Price Gap:- AED 284,127**

## 📊 Tree Map – Properties by Sub-Type
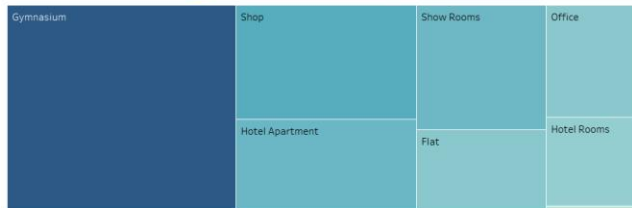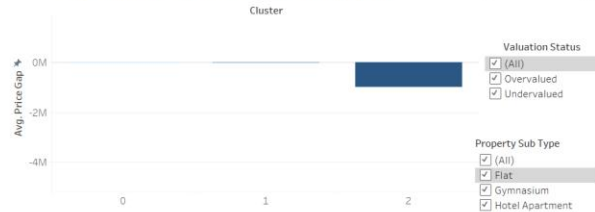


*Tree map labels: Gymnasium, Shop, Show Rooms, Office, Hotel Apartment, Flat, Hotel Rooms*

## 🌟 Bar Chart – Investment Opportunity by Cluster



*Cluster*

## 🧠 Scatter Plot – Actual vs Predicted Price (with Color by Cluster)



*Y-axis: Predicted Price RF; X-axis: Selling Price*

# 🏠 **Market Overview Dashboard – "Dubai Real Estate Pulse"**

This dashboard provides a snapshot of Dubai's property market, highlighting price ranges, segment composition, and predicted valuation patterns.

**Max Predicted Property Price:- AED135,075,384**       **Average Price Gap:- AED 284,127**       **Total Number of Undervalued properties: 263,667**
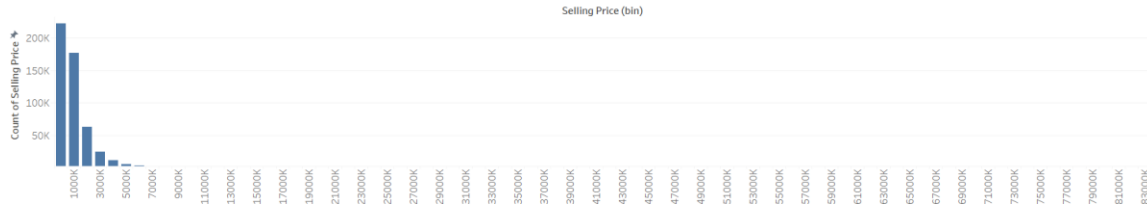
Property Sub Type
- ☑ (All)
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- ☑ Hotel Rooms
- ☑ Office
- ☑ Shop
- ☑ Show Rooms
- ☑ Store

## 📈 Line Chart – Predicted Price by Area

Area Name
- Al Barsha South Fifth
- Al Barsha South Fou...
- Al Barshaa South Se...
- Al Barshaa South Thi...
- Al Hebiah First
- Al Hebiah Fourth
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- Al Jadaf
- Al Khairan First
- Al Kheeran

0K   500K   1000K   1500K   2000K   2500K   3000K   3500K   4000K   4500K   5000K   55(

Avg. Predicted Price RF
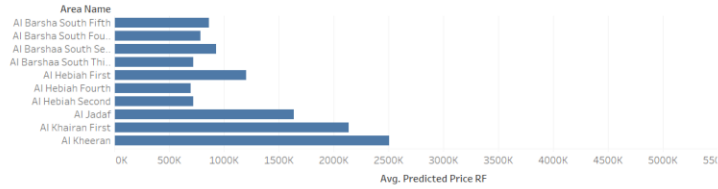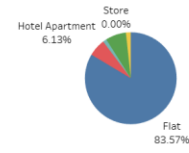
## Pie – Property Sub Type Share

Property Sub Type
- Flat
- Gymnasium
- Hotel Apartment
- Hotel Rooms
- Office
- Shop
- Show Rooms
- Store

Store
Hotel Apartment 0.00%
6.13%

Flat
83.57%

Area Name
- ☑ (All)
- ☑ Al Barsha So...
- ☑ Al Barsha So...
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- ☑ Al Barshaa S...
- ☑ Al Hebiah First
- ☑ Al Hebiah Fo...
- ☑ Al Hebiah Sec...
- ☑ Al Jadaf
- ☑ Al Khairan Fir...
- ☑ Al Kheeran
- ☑ Al Kifaf

## 🏷️ Histogram – Distribution of Property Prices

Selling Price (bin)

Count of Selling Price ✳

200K
150K
100K
50K

1000K 3000K 5000K 7000K 9000K 11000K 13000K 15000K 17000K 19000K 21000K 23000K 25000K 27000K 29000K 31000K 33000K 35000K 37000K 39000K 41000K 43000K 45000K 47000K 49000K 51000K 53000K 55000K 57000K 59000K 61000K 63000K 65000K 67000K 69000K 71000K 73000K 75000K 77000K 79000K 81000K 83000K

## 🏠"Find Your Advantage: Undervalued Property Insights for Buyers and Investors"

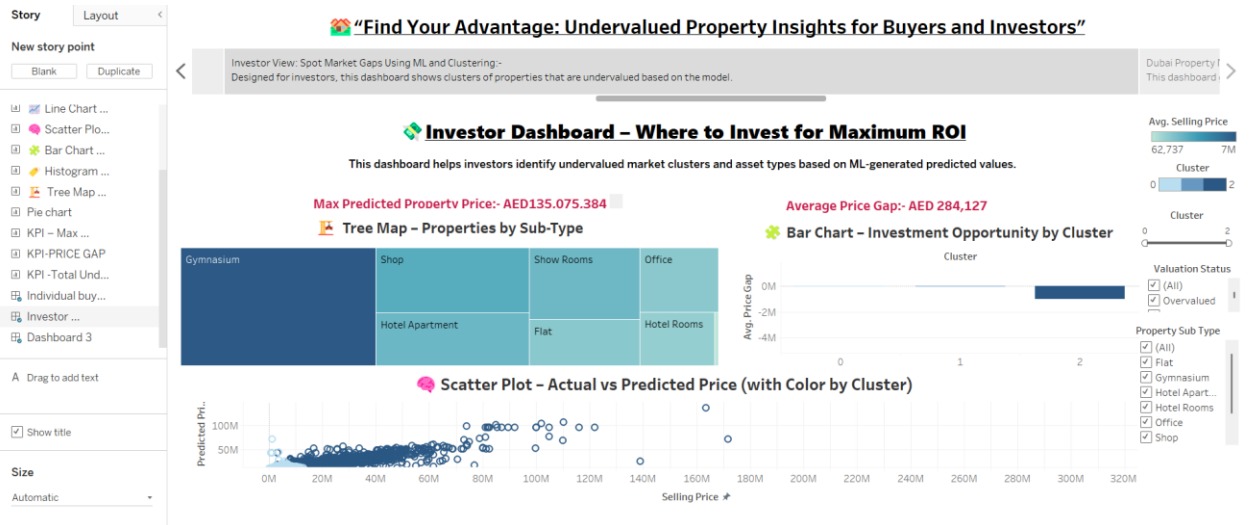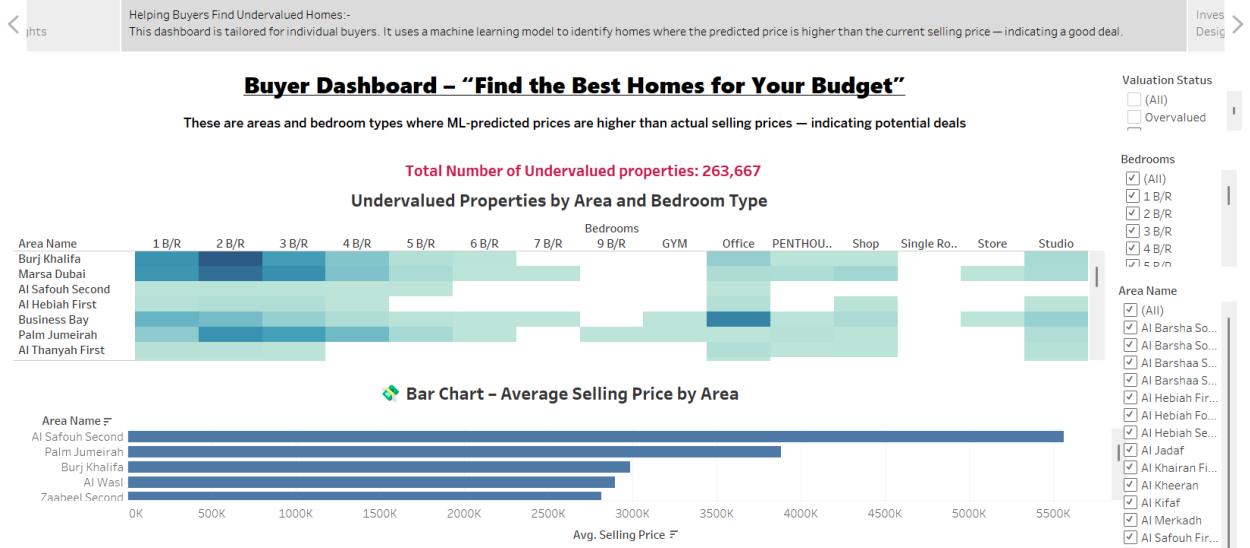‹ Smart Real Estate Decisions Powered by Machine Learning:-
This story explores how predicted property prices (using machine learning) can help buyers and investors find undervalued properties in Dubai. Our real estate analytics system highlights     Helping Buyers Find Und...
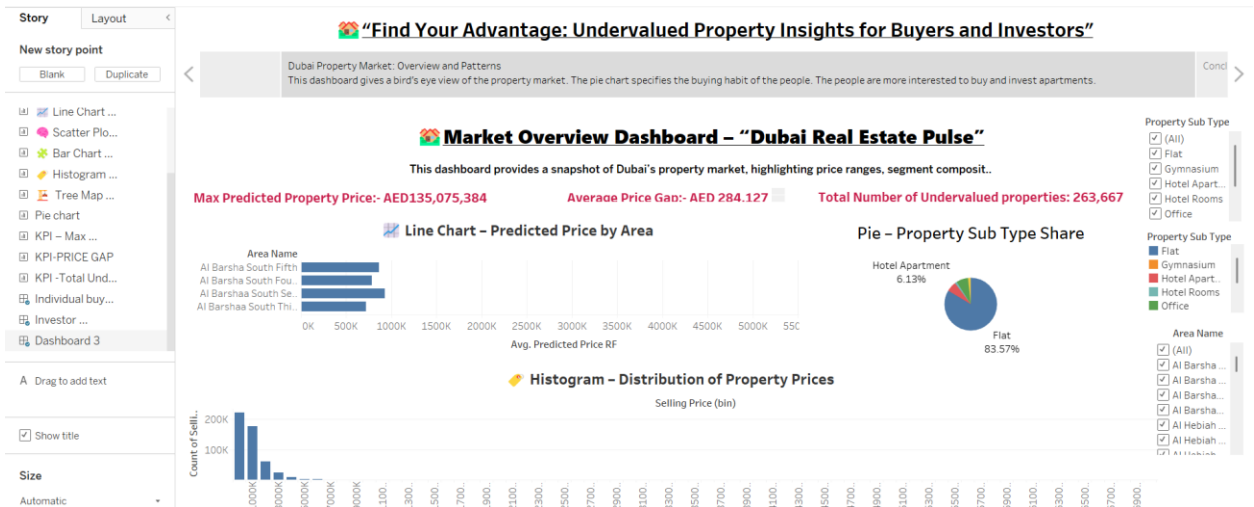This dashboard is tailor ›

*Welcome to our ML-powered real estate analytics project.*
*In this Tableau story, you'll see how we combined machine*
*learning and interactive dashboards to help buyers and investors*
*make smarter property decisions in Dubai.*

🏠 **"Find Your Advantage: Undervalued Property Insights for Buyers and Investors"**

Helping Buyers Find Undervalued Homes:-
This dashboard is tailored for individual buyers. It uses a machine learning model to identify homes where the predicted price is higher than the current selling price — indicating a good deal.

## Buyer Dashboard – "Find the Best Homes for Your Budget"

These are areas and bedroom types where ML-predicted prices are higher than actual selling prices — indicating potential deals

**Total Number of Undervalued properties: 263,667**

### Undervalued Properties by Area and Bedroom Type



🔶 **Bar Chart – Average Selling Price by Area**



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🏠 **"Find Your Advantage: Undervalued Property Insights for Buyers and Investors"**

Investor View: Spot Market Gaps Using ML and Clustering:-
Designed for investors, this dashboard shows clusters of properties that are undervalued based on the model.

## 💎 Investor Dashboard – Where to Invest for Maximum ROI

This dashboard helps investors identify undervalued market clusters and asset types based on ML-generated predicted values.

**Max Predicted Property Price:- AED135.075.384**

📈 **Tree Map – Properties by Sub-Type**

**Average Price Gap:- AED 284,127**

✳️ **Bar Chart – Investment Opportunity by Cluster**



🔴 **Scatter Plot – Actual vs Predicted Price (with Color by Cluster)**

**New story point**

Blank | Duplicate

Line Chart ...
Scatter Plo...
Bar Chart ...
Histogram ...
Tree Map ...
Pie chart
KPI – Max ...
KPI-PRICE GAP
KPI -Total Und...
Individual buy...
Investor ...
Dashboard 3

A  Drag to add text

☑ Show title

**Size**

Automatic

🏠 **"Find Your Advantage: Undervalued Property Insights for Buyers and Investors"**

Dubai Property Market: Overview and Patterns
This dashboard gives a bird's eye view of the property market. The pie chart specifies the buying habit of the people. The people are more interested to buy and invest apartments.

Concl

🏠 **Market Overview Dashboard – "Dubai Real Estate Pulse"**

This dashboard provides a snapshot of Dubai's property market, highlighting price ranges, segment composit..

Max Predicted Property Price:- AED135,075,384    Average Price Gap:- AED 284.127    Total Number of Undervalued properties: 263,667

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Hotel Apartment
6.13%

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83.57%

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Selling Price (bin)

Count of Selli...
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Property Sub Type
☑ (All)
☑ Flat
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☑ Hotel Rooms
☑ Office

Property Sub Type
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■ Gymnasium
■ Hotel Apart...
■ Hotel Rooms
■ Office

Area Name
☑ (All)
☑ Al Barsha ...
☑ Al Barsha ...
☑ Al Barsha..
☑ Al Barsha..
☑ Al Hebiah ...
☑ Al Hebiah ...

🏠 **"Find Your Advantage: Undervalued Property Insights for Buyers and Investors"**

Conclusion

ts.

**Conclusion & Data-Driven Recommendations**
✅ Buyers should focus on 2–3 B/R listings in Al Jaddaf, Business Bay, and Dubai Marina — undervalued by AED 300K–1M.
✅ Investors can target Cluster 2 and Cluster 4, where properties are undervalued by up to 12%.
✅ High-end sub-types like gym and studio are often overpriced — caution advised.

This project demonstrates how ML + Tableau storytelling can unlock hidden opportunities in the real estate market.