



# First Estimator



House prices prediction model by Maria | Apostolis | Nikos

# WHY?- Why did we develop the ML model?



Empowering a real estate company to make better, faster pricing decisions.

- The real estate market is competitive and accurate **pricing** is crucial for **success**.
- Brokers need a reliable **starting point** to estimate house prices quickly and effectively.
- A machine learning model would be a solution that **saves a lot of time**, since it can predict a **first estimation** of each house's price.



# HOW?- How Did We Approach This?



We built a model based on the features brokers consider important.

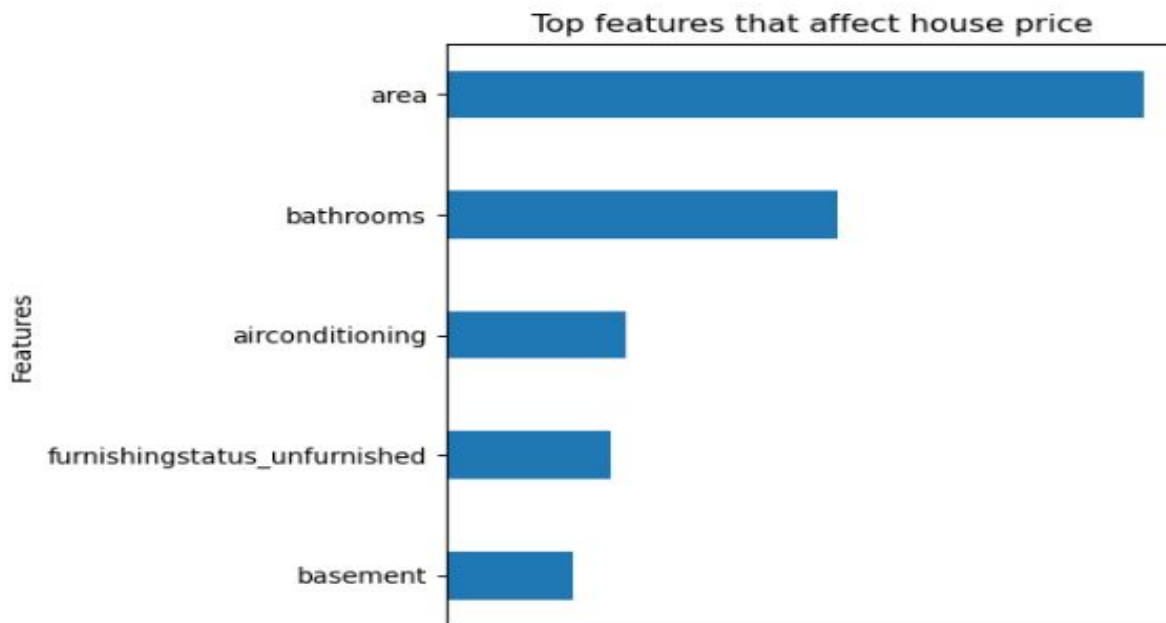
- **Understanding the Data:** Analyzed the dataset provided by brokers, focusing on key features influencing house prices (e.g., number of bedrooms, size).
- **Model Development:**
  - We analyzed relationships between these **features** and historical house **prices**.
  - Built a predictive system to estimate prices based on **new inputs**.
- **Evaluation:** Tested the model to ensure the estimates **align** closely with real market prices.

# HOW?-Some graphs for better understanding



# HOW - What Features Are Considered in the Model?

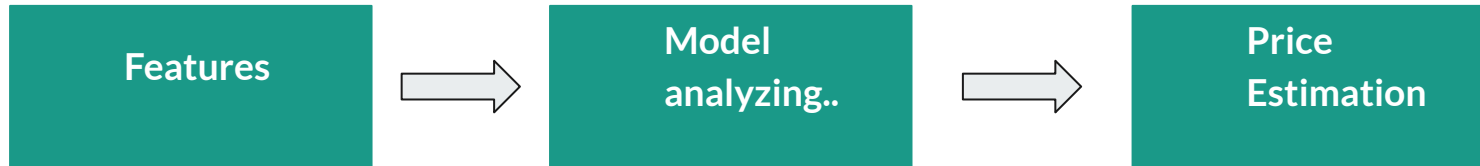
Features brokers should prioritize in pricing decisions.



# HOW - How Does the Model Work?

Turning raw data into actionable insights.

1. The **broker inputs a house's features** into the model.
2. The model analyzes these features based on patterns it learned from historical data.
3. The model provides a **price estimate**, acting as a **starting point** for brokers.



# WHAT?- What did we achieve?



- A tool that delivers reliable **first estimations**, with **moderate to strong** model reliability .
- The model can predict house prices within a **reasonable range** of market values.
- It **complements brokers' expertise** by offering a consistent, data-backed starting price.
- **Time Efficiency:** Provides quick estimates, reducing manual analysis.

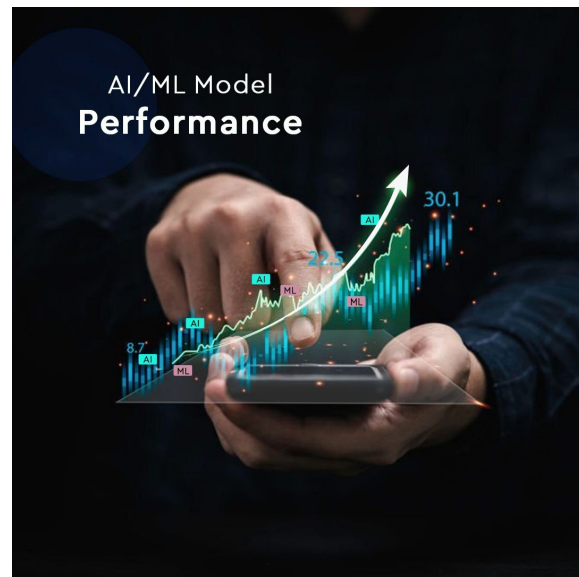
# Improving the Model

To make the model even better, we need more detailed data.

Additional data could improve accuracy:

- Neighborhood trends, such as upcoming developments
- Market conditions, like seasonality or demand shifts
- Crime rate
- Kitchen, garden, pool, fireplace, etc.
- Year built

**Call to Action!** Collaboration with the company to collect more features that will enhance our model.





# Closing and Next Steps



## Next Steps:

- Collaborate with the company to gather **more feature information**.
- **Pilot** the tool in a selected region, gather **feedback**, and improve.
- Explore how this tool can integrate into brokers' **workflows** seamlessly.

**We're excited to hear your feedback and work together to bring this tool to life!**

