**Predicting House Prices Using Machine Learning Techniques**

* **Problem Definition:**

In the real estate market, determining the fair price of a property is a challenging task due to the wide range of factors influencing house prices — such as location, size, age, number of rooms, and local amenities. Buyers often overpay, and sellers may undervalue their properties due to lack of data-driven insights.

This project aims to build a **machine learning model that accurately predicts house prices** based on various property features. The goal is to assist stakeholders — including real estate agents, buyers, and investors — in making more informed and data-backed pricing decisions.

* **Objectives:**

1. Analyze the factors that influence house prices.
2. Build predictive models to estimate house prices based on key features.
3. Compare different regression algorithms for performance.
4. Develop an interactive dashboard or deploy a prediction API.
5. Interpret and visualize model results for business insights.

* **Scope:**

Source:

* **Constraints:**

1. Lack of real time data.
2. Model will not be deployed under CI/CD pipeline.

* **Expected Outcomes:**

1. Comprehensive EDA report showing:
2. Summary statistics of data.
3. Distribution analysis of and Correlation between all variables.
4. Report showing good feature combinations for regression model development.
5. Fully functional Machine Learning model API.
6. Interactive deployed Website.