

Visualizing Housing Market Trends: An Analysis of Sale Prices and Features

Technology Stack

Programming Language

- Python – Used for data cleaning, preprocessing, analysis, and visualization.

Data Processing & Analysis

- Pandas – Data manipulation and transformation.
- NumPy – Numerical computations and statistical calculations.

Data Visualization

- Matplotlib – Basic plotting and trend visualization.
- Seaborn – Advanced statistical visualizations.
- Tableau / Power BI – Interactive dashboards and business-level insights.

Database (Optional – if large dataset)

- MySQL / PostgreSQL – Storing structured housing datasets.
- SQLite – Lightweight database for local projects.

Machine Learning (If predictive analysis is included)

- Scikit-learn – Regression models (Linear Regression, Random Forest, etc.).
- XGBoost – Advanced boosting algorithm for price prediction.

Development Environment

- Jupyter Notebook – Exploratory data analysis.
- Google Colab – Cloud-based analysis and collaboration.
- VS Code / PyCharm – Code development and debugging.

Version Control

- Git – Version tracking.
- GitHub – Repository hosting and collaboration.

Deployment (Optional)

- Streamlit / Flask – Web app for interactive housing price prediction dashboard.
- Heroku / Render – Hosting the application.