🏡 House Price Prediction App

Badges (for GitHub README, shown here as text):  
[![Python](https://img.shields.io/badge/python-3.9%2B-blue.svg)](https://www.python.org/) [![Streamlit](https://img.shields.io/badge/Streamlit-cloud-FF4B4B.svg)](https://streamlit.io/) [![Kaggle](https://img.shields.io/badge/dataset-Kaggle-20BEFF.svg)](https://www.kaggle.com/c/house-prices-advanced-regression-techniques) [![License](https://img.shields.io/badge/license-MIT-green.svg)](LICENSE)

This project is a Streamlit web app that predicts house prices using a Linear Regression model trained on the Kaggle House Prices dataset.

# ✨ Features

* 📥 Automatic Kaggle dataset download (no manual CSV upload needed)
* ⚙️ Feature selection — choose one or more predictors (GrLivArea, GarageCars, OverallQual, YearBuilt)
* 📊 Data exploration — view sample data, histogram of sale prices, and scatter plots
* 🤖 Linear Regression model trained live in the app
* 📐 R² score to show model performance
* 💡 Interactive predictions with real-time input

# 🚀 Deployment

This app is deployed on Streamlit Cloud. To deploy your own:

1. Fork this repository
2. Connect it to Streamlit Cloud
3. Add your Kaggle API credentials under Secrets

# ⚡ Run Locally

1. Clone this repo: git clone https://github.com/yourusername/House-Prices-Prediction.git
2. Navigate to folder: cd House-Prices-Prediction
3. Install dependencies: pip install -r requirements.txt
4. Add Kaggle API credentials to `.streamlit/secrets.toml`:  
    KAGGLE\_USERNAME = "your-username"  
    KAGGLE\_KEY = "your-key"
5. Run the app: streamlit run app.py

# 📦 Requirements

* streamlit
* pandas
* scikit-learn
* kaggle
* matplotlib
* seaborn

# 📂 Repository Structure

* House-Prices-Prediction/
* │── app.py # Streamlit app
* │── requirements.txt # Dependencies
* │── README.md # Project documentation

# 🏆 Acknowledgements

• Dataset: Kaggle - House Prices: Advanced Regression Techniques

• Built with Streamlit

# 📜 License

This project is licensed under the MIT License.