



What's my House Worth?

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Motivation for App

- House pricing decisions are often subjective and can lead to bad investment decisions
- Real estate agencies require accurate estimation of the price of a property to decide whether it is undervalued or not
- Individual house buyers would like an objective estimate the worth of a house before making an investment decision
- Mission is to build an app which would help accurately predict the price of a property based on certain characteristics like property type, no. of floors, age etc. which can be deployed as a website as well as an Android/iOS app



App Demo



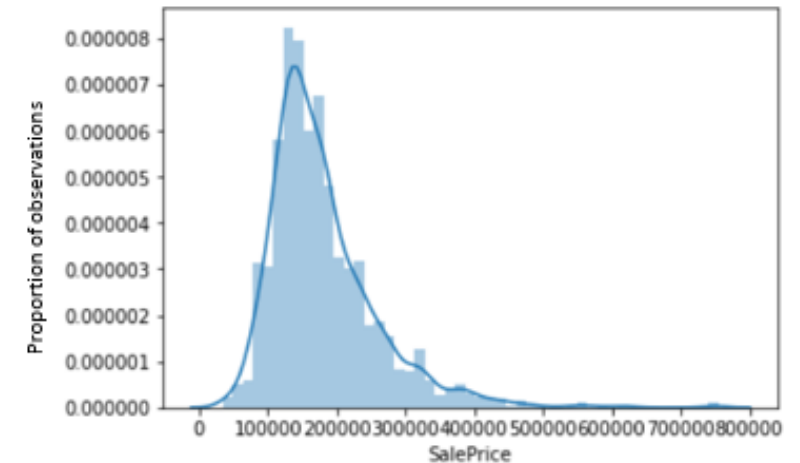
Data Analysis

Input Data:

- Popular Ames Housing Dataset used for analysis
- Source: [Kaggle](https://www.kaggle.com/datasets/camneltup/ames-housing-dataset)

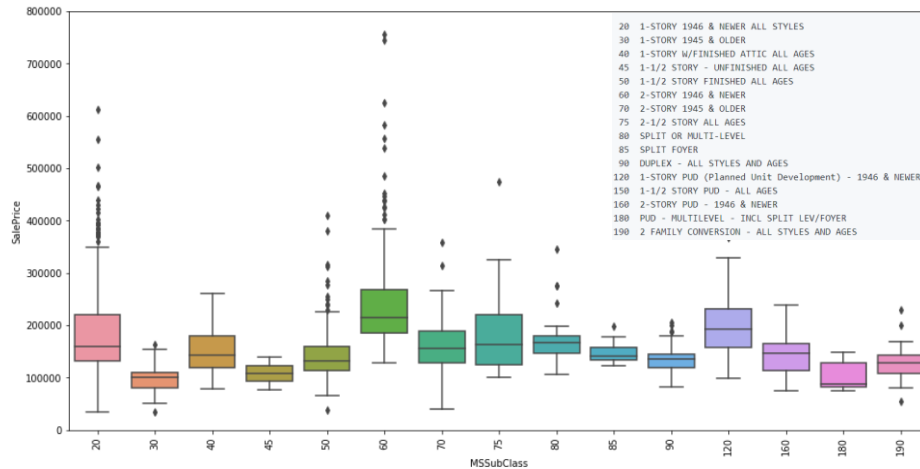
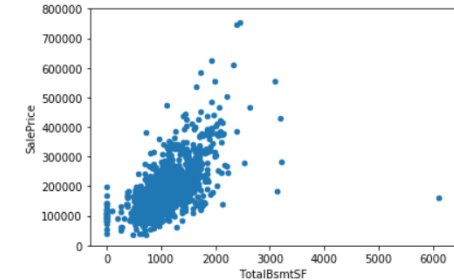
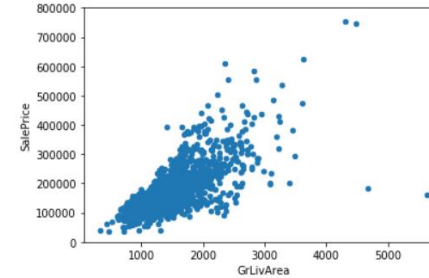
Details:

- Details of 1,460 properties and their SalePrice
- Attributes include 79 explanatory variables
 - Total Area
 - Garage Area
 - No. of Fireplaces
 - Quality scores
 - ...



Interesting Insights

- The price of a house seems to be strongly dependent on the total above ground square footage as well as the total basement square footage

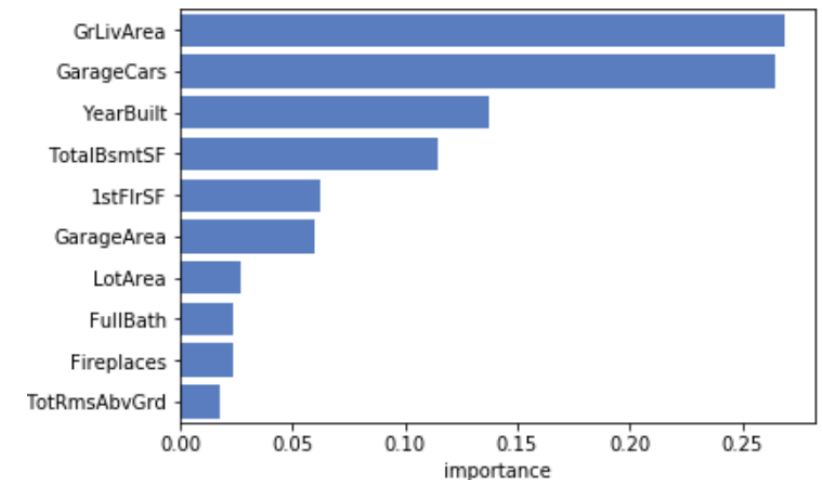


- Buildings built after 1946 generally tend to have higher prices than older buildings



Modelling Results

- **Random Forest Regressor** used for modelling
- Quality scores excluded from modelling as these features are subjective or cannot be ascertained without consulting a professional
- Final model contains 10 variables
- Model Performance:
 - Model achieved an OOB R^2 of **82%**
- Success Criteria:
 - **Model Criterion:** Our model is successful if the R-square evaluation metric exceeds 60%
 - **Desired Business Outcomes:** A Key Performance Indicator of the success of the app would be continual increase in it's adoption to drive business decisions by the various Real Estate agencies and individual consumers. The intention is to deploy the app at a particular location, and based on the performance expand to other areas



References and Contact Info

For more information on this project, please refer:

- Project Repo: <https://github.com/saurabhannadate93/Whats-my-House-worth>

Or contact:

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