



Buying and Renting Houses

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Project Proposal

Overview:

As Mark Twain said, “Buy land, they’re not making anymore.” Housing has always been a stable and sought-after investment in the United States. Housing prices have risen and fallen with great volatility in the past decades and have been a hard market to get into. A rental property could be a sound investment, particularly if the rental income you collect offers you some extra income. However, it is best to weigh all aspect of purchasing a second home, including financial implications, taxes you’ll have to pay, laws involved and how much extra time you have on your hands.

Applications:

Finding areas that have affordable housing markets, appropriate cost of living (salaries – cost of living) and have people moving to them to fill homes will present an excellent model to find where to buy homes to rent. In order to take it a step further, I will create a system to find out where ‘up and coming’ cities or areas will exist based on past trends.

A hypothetical client could purchase this model to find where to invest X amount into buying rental properties, knowing they will have tenants and will be able to profit on their properties.

Data:

The data will consist of listing of housing for sales, rent, cost of living, and average salaries. I will also use data of where people are moving to and from.

<https://rapidapi.com/realymole/api/realty-mole-property-api>

-Using this API I will draw on a request for Sale listings, Rental listings, and sale price estimates. This data will provide me most importantly, addresses, sales prices, rental prices, location, among other data points that will be crucial for my project.

https://www.kaggle.com/paultimothymooney/zillow-house-price-data?select=City_MedianRentalPrice_Studio.csv

-Using this data I will be able to obtain more housing prices than just is provided in the rapid API data source

<https://data.world/jonloyens/irs-income-by-zip-code>

-Using this data I will be able to find the income by zip code, this will give me an idea of how much people make, and give me an idea of the ‘cost of living’ and how much people can afford to buy property and rent property.

<https://www.statista.com/statistics/238988/the-percent-increase-of-the-fastest-growing-large-cities-in-the-us/>

-Using this data I can find the top cities that are growing

Approach:

Find where people are moving to, and where people are moving from. Using Statista data.

Find, and illustrate, the difference of the cities cost of living and average salaries.

This will give us an idea of where people are moving to, and which cities have properties for sale that can be bought and subsequently quickly rented out.

Illustrate how to find properties that fit into a certain budget, using API calls for certain cities.

Demonstrate what makes these cities desirable, and to find a pattern that these cities all have in common, will help me create the model to predict new cities that an investor can turn their attention to.

Deliverables

- 1.Code for data preparation
- 2.Code for model fitting
- 3.Datebase of compatible housing markets
- 4.Slide deck presentation describing the project
- 5.A report describing the project, including EDA and data story