#### Residential Home Prices in the United States over the Next 10 Years

Factors That Will Influence Residential Home Prices In the United States over the Next 10 Years Overview:

In USA There are 50 states with 6 different races and more sharing the country with a population of approximately 34 crores having the highest GDP in the world. Despite being in this scenario Price of a product will be based on Supply and Demand. Here we are considering the product as Residential Houses across United States. The best approach to start with will be a statistical approach in which it can be categorised in to Qualitative and Quantitative Analysis

**Qualitative Analysis:** Qualitative data are the result of categorizing or describing attributes of a population. Hair colour, blood type, ethnic group, and the car a person drives, and the street a person lives on are examples of qualitative data

**Quantitative Analysis**: are always numbers. Quantitative data are the result of counting or measuring attributes of a population. Amount of money, pulse rate, weight, number of people living in your town

#### EDA:

- Univariate Analysis,
- Bivariate Analysis,
- Segmented Analysis
- Data Visualization for all the Driver variables

#### Modelling:

- Ordinary Least Squares Method
- Gradient Descent Method
- Multi Variate Regression Analysis

#### **Problem Statement:**

Describe all the factors that will influence residential home prices in the United States over the next 10 years?

#### **Decentralizing the Problem Statement**

- 1. Demographic Factors
- 2. Housing Factors
- 3. Economic Factors
- 4. Government Policies
- 5. Technology Disrupt
- 6. Act of God

#### 1 Demographic Factors:

- Age
- Gender
- Race
- Marital status

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- Number of children (if any)
- Occupation
- Annual income
- Education level
- Living status (homeowner or renter)

#### 2 Housing Factors

- Bedrooms
- Bathrooms
- Square Feet
- Age
- Stories
- Garage
- Basement
- Exterior Construction
- Lot Size
- Pool
- Floor Covering
- General Interior
- General Exterior
- Recreation Centres
- Crime Statistics
- Proximity to Downtown
- Proximity to Major Highway
- Proximity to shopping centre
- Proximity to schools, colleges, Universities etc.

#### 3. Economic Factors

- Financial Markets NYSE , NASDAQ
- Unemployment Rate
- Consumer Price Index
- Gross Domestic Product [personal consumption, business investment, government spending, net exports]
- Payroll Employment
- Mortgage

#### 4. Government Policies

- Low-interest credit initiatives
- Public-policies
- Revising the mortgage polices

## 5 Technology Disrupt – SMART HOMES

- Offsite Modular and Prefabricated Houses
- Co-Living | office space and Living space
- Big-Data: use of buy and sell history of data and Predict the price of the product
- All and machine learning: apply various algorithms and review the statistical Models

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- Virtual and augmented reality :people who want to see the view of the house from remote Place
- Internet of Things : Activate gadgets remotely whenever
- 5G: Monitor the activities from remote place with faster speed
- Drones: Aerial view of the bigger houses at low costs compared to ages ago

## 6 Act of God

• Natural Disasters