Velammal Institute of Technology

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PREDICTING HOUSE PRICES USING MACHINE LEARNING

IBM AI GROUP -1

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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OUTLINE

★ PROJECT SPECIFICATION

★ DATA ANALYSIS

★ RESOURCES REQUIRED

★ FACTORS AFFECTING PRICES

★ PROBLEM RESOLVING TECHNIQUES

★ SCOPE OF PROJECT

★ PROJECT BUDJECT

★ FUTURE ENCHANCEMENT

PROJECT SPECIFICATION

We will strategically plan out our project to increase productivity and minimize development costs.

SETTING GOALS

Our target is to develop more than 500 residential spaces in the first year.

BEING ECO FRIENDLY

We will take special care to ensure that our construction process is highly sustainable and all the resources are never wasted.

DATA ANALYSING

SAMPLE DATASET:

Locality	Area	Bedrooms	Bathrooms	Price
Electronic city	1056	2	1	40
Whitefield	1170	2	1	38

Table showind preloaded dataset

6.Results:

The above picture shows the output of our model.

RESOURCES REQUIRED

MONEY   MAN POWER   AI MACHINERY   MATERIAL

STEPS TO RESOLVE PRICES USING AI

INPUT DATA

DATA PROCESS

LINEAR RECRESSIVE

There are many factors that affect house prices, but some of the most important ones are the location, the size of the house, and the condition of the house.

INTEREST RATE
SUPPLY OF HOUSING
NUMBER SELLING
AVAILABILITY OF MORTGAGES
NEW BUILDS
ECONOMIC GROWTH
SPECULATIVE DEMAND
UNEMPLOYMENT

EXISITING SOLVE SYSTEM

LINEAR REGRESSION

A LINEAR REGRESSION MODEL IS A STATISTICAL MODEL THAT IS USED TO PREDICT A DEPENDENT VARIABLE BASED ON ONE OR MORE INDEPENDENT VARIABLES. THE COEFFICIENTS OF THE MODEL ARE ESTIMATED USING DATA FROM A TRAINING SET, AND THE MODEL IS THEN USED TO MAKE PREDICTIONS ON A TEST SET.

A MULTIPLE LINEAR REGRESSION MODEL IS A LINEAR REGRESSION MODEL WITH MORE THAN ONE INDEPENDENT VARIABLE. THE COEFFICIENTS OF THE MODEL ARE ESTIMATED USING DATA FROM A TRAINING SET, AND THE MODEL IS THEN USED TO MAKE PREDICTI
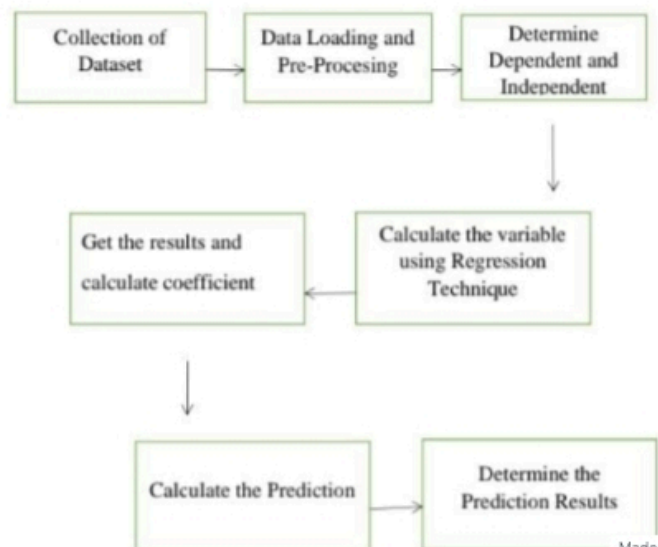
COLLECTION OF DATA SET

IN ORDER TO COLLECT DATA SETS, WE NEED TO FIRST DEFINE WHAT TYPES OF DATA SETS WE NEED. DO WE NEED DEMOGRAPHIC DATA? INCOME DATA? LOCATION DATA? ONCE WE HAVE DEFINED THE TYPES OF DATA SETS WE NEED, WE CAN BEGIN TO COLLECT THEM.
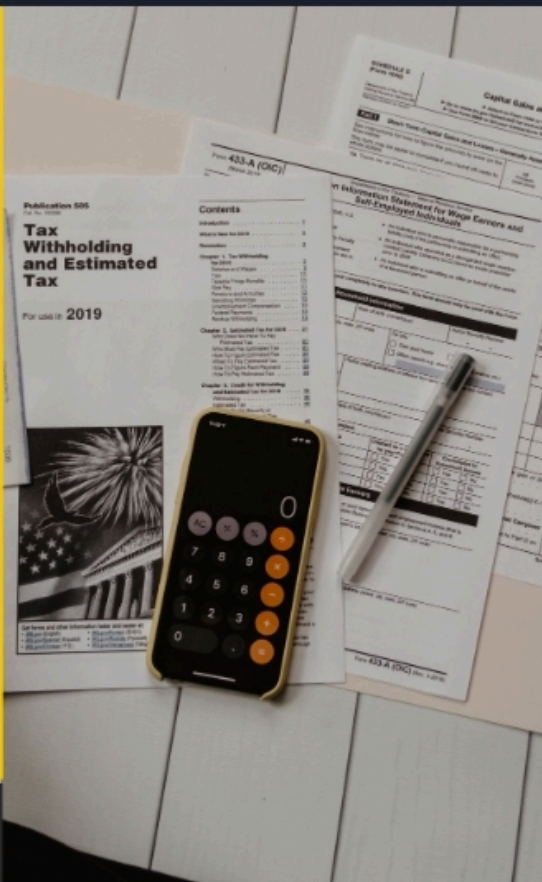
THERE ARE A FEW WAYS TO COLLECT DATA SETS. WE CAN PURCHASE THEM FROM A DATA PROVIDER, OR WE CAN COLLECT THEM OURSELVES THROUGH SURVEYS OR OTHER MEANS. IF WE PURCHASE THEM, WE NEED TO MAKE SURE THAT THE DATA SETS ARE OF HIGH QUALITY AND THAT THEY MEET OUR NEEDS. IF WE COLLECT THEM OURSELVES, WE NEED TO MAKE SURE THAT WE HAVE A REPRESENTATIVE SAMPLE AND THAT THE DATA ARE ACCURATE.

SCOPE OF HOUSE PRICE

SYSTEM DESIGN

Architecture


```
Collection of        →   Data Loading and    →   Determine
Dataset                  Pre-Procesing           Dependent and
                                                 Independent
                                                      │
                                                      ↓
Get the results and  ←   Calculate the variable
calculate coefficient    using Regression
                         Technique
     │
     ↓
Calculate the Prediction  →  Determine the
                             Prediction Results
```

PROJECT PRICES BUDGET

Concept	Estimated Cost	Real Cost
Demolition and Deforestation	$50,000	$0.00
Protection of the construction site	$50,000	$0.00
Waste transport and disposal	$25,000	$0.00
Soil Removing	$20,000	$0.00
Excavation	$30,000	$0.00
Ground heating	$20,000	$0.00
Transportation	$30,000	$0.00
Blasting	$5,000	$0.00
Bridges, ramps, hangings	$40,000	$0.00

FUTURE ENHANCEMENT

Determining Future House Prices (And Their Impact on Property Development)
Housing prices across Australia have witnessed a massive increase over the past two years. But will the trend continue? Learn what different industry players have to say on the topic.
As we enter 2022, many property developers and investors wonder what the Australian property market will look like this year and the following year.

For now, we're all witnesses to how the numerous pandemics-related restrictions didn't stop the housing market in the country from booming in 2021.

Even though house price rate growth seems to be slowing down, property values are still going up in most markets across the nation. Sydney, for example, witnessed an increase in house prices of more than 25.5%, Brisbane 29.2%, and Melbourne 14.9%.

However, the growth momentum showed signs of slowing down after hitting its peak in March 2021, leading some to believe the market will crash in 2022. But these predictions have been made year after year and have been proven to be wrong.

Read on to learn what is really going on in the market and what the projections are for 2022 and beyond.

THANK YOU!