

## INTRODUCTION

### OVERVIEW

Housing prices include housing rent prices indices, real and nominal house prices indices, and ratios of price to rent and price to income. In most cases, the nominal house price index covers the sales of newly-built and existing dwellings, following the recommendations from the RPPI (Residential Property Prices Indices) manual. The real house price index is given by the ratio of the nominal house price index to the consumers' expenditure deflator in each country from the OECD national accounts database. Both indices are seasonally adjusted. The price to income ratio is the nominal house price index divided by the nominal disposable income per head and can be considered as a measure of affordability. The price to rent ratio is the nominal house price index divided by the housing rent price index and can be considered as a measure of the profitability of house ownership. The price to income and price to rent ratios are indices with base year 2015.

### PURPOSE

The Housing Price Index is a quarterly report by the Reserve Bank of India (RBI) based on the all-India price movement from data collected from a few cities. The indices are based on official data of property price transactions obtained from the respective state governments' registration authorities.

House price prediction can help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house.

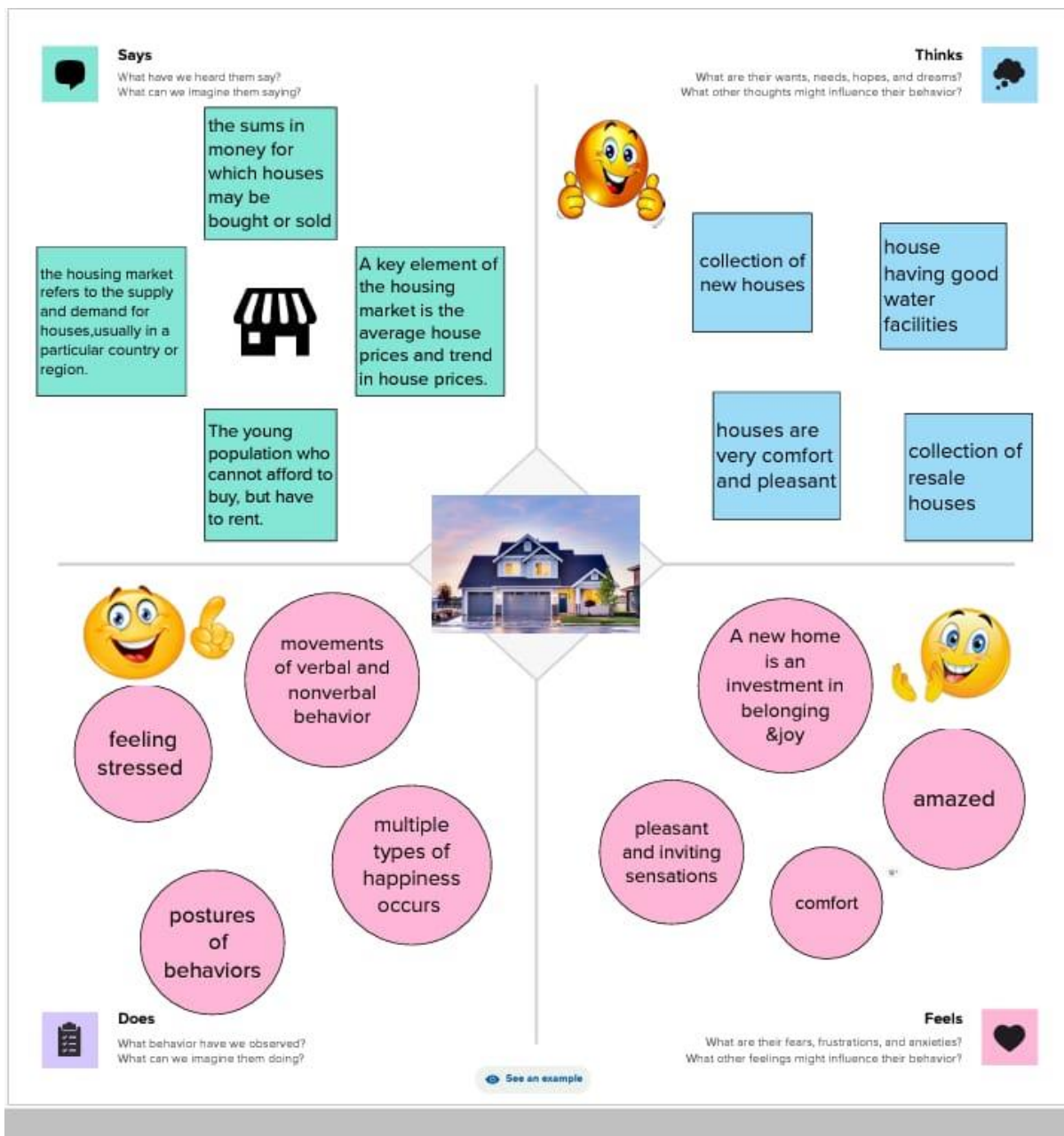
### PROBLEM DEFINITION

Housing prices include housing rent prices indices, real and nominal house prices indices, and ratios of price to rent and price to income.

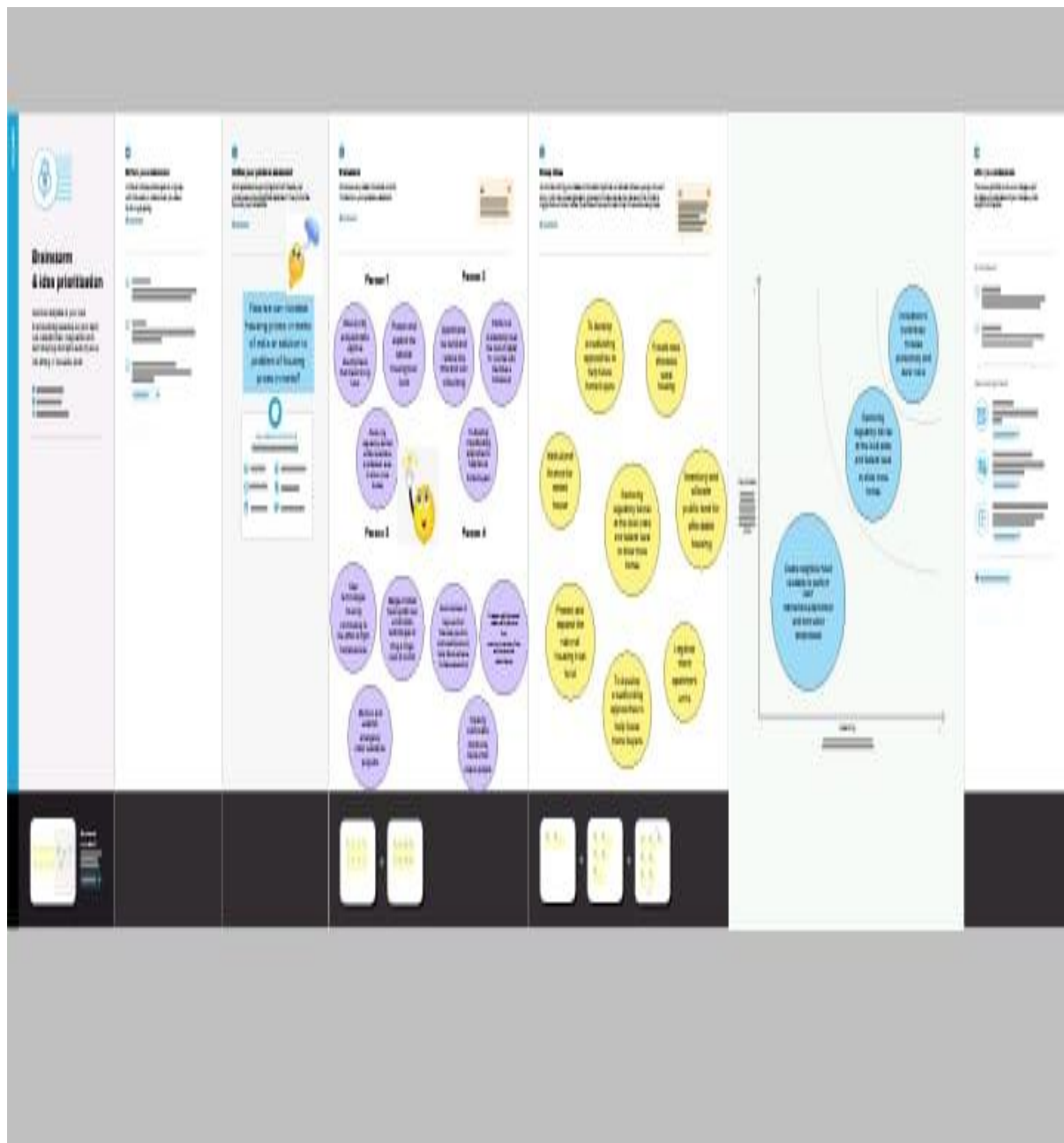
### DESIGN THINKING

Select a site in the residential zone referring to the regional Masterplan for low-cost housings, avoiding future complications, and being away from ecologically sensitive zones. Keep the elevation of the location in mind to avoid flooding during rains. The soil should have a good bearing capacity. The site should not be in any regulatory zone of an archaeological site and away from high-tension lines, water channels, and underground gas pipelines.

## EMPATHY MAP



## IDEATION & *BRAINSTROMING* MAP



## RESULT

Different housing prices in various cities of India.

## ADVANTAGE

House price prediction can help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house.

## DISADVANTAGE

It doesn't predict future prices of the houses mentioned by the customer. Due to this, the risk in investment in an apartment or an area increases considerably. To minimize this error, customers tend to hire an agent which again increases the cost of the process.

## APPLICATION

House price prediction can help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house. The values of X and Y variables are training datasets for the model representation of linear regression.

## CONCLUSION

Thus, the machine learning model using linear regression algorithm is very helpful in predicting the house prices for real estate customers.

## FUTURE SCOPE

House price prediction can help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house.