

HOUSE PRICE PREDICTION USING MACHINE LEARNING

Why House Price Prediction using machine learning?

It can help homeowners, buyers, and real estate professionals make more informed decisions about the real estate market.

It can help them make better decisions and achieve their goals more effectively.

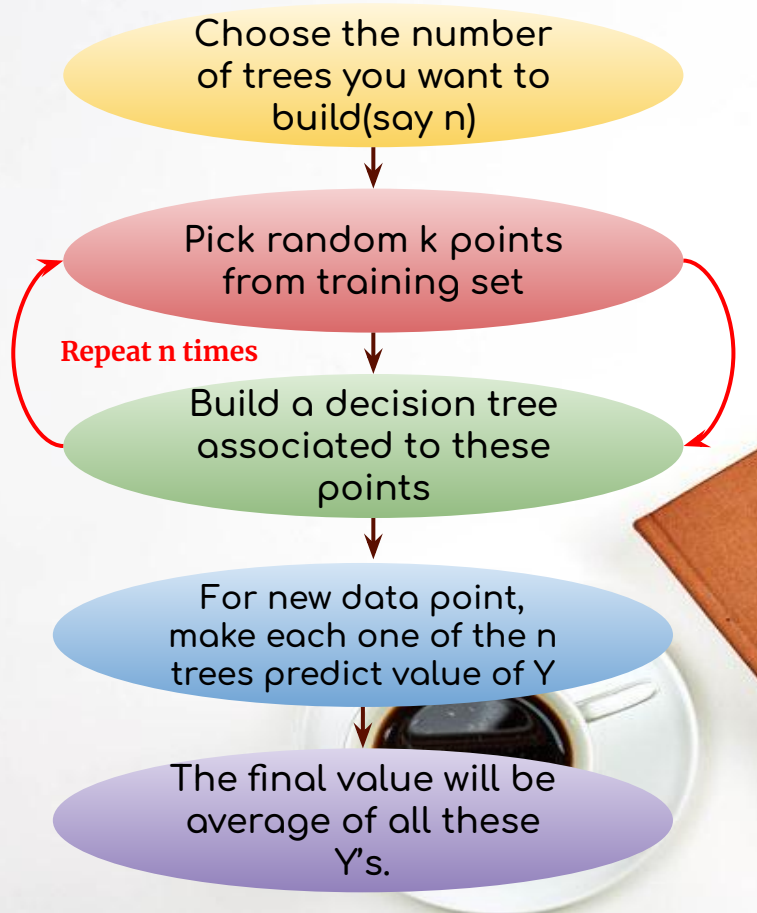
Introduction

Objective:

We'll take a dataset and train 80% of the data and then test our training model by comparing with the test data.

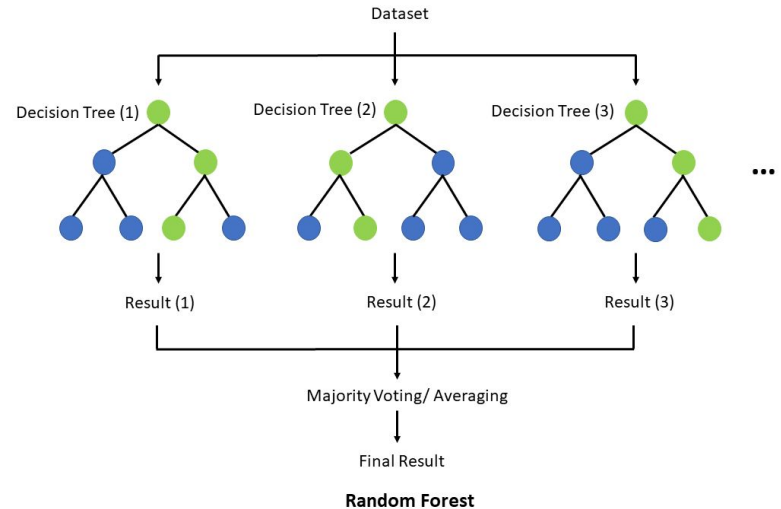
We'll analyze the best regression model for closest predictions.

Working Model in the Project: Random forest Model



Why random forest over multiple linear regression?

- **More accurate**
- **Suitable for dataset with more features**
- **Takes average of many predictions**



```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
```

(For categorical variables)

```
from sklearn.preprocessing import OneHotEncoder
```

```
from sklearn.metrics import mean_absolute_error
```

```
from sklearn.model_selection import train_test_split
```

(For feature scaling)

```
from sklearn.preprocessing import StandardScaler
```

(For SVR and Random Forest)

```
from sklearn.svm import SVR
```

```
from sklearn.ensemble import RandomForestRegressor
```

- ❑ Finding dataset : Less datasets available for Indian houses.
- ❑ Number of data in dataset : After removing the NA values, very less values left for the dataset.
- ❑ Finding the right model : Random Forest is better than Linear Regression and SVR.
- ❑ Increasing accuracy of Random Forest : How number of trees affect the accuracy.



Thank
You

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