**# Boston Housing Price Dataset**

This repository contains the Boston Housing Price dataset, which is commonly used for regression analysis and predictive modeling tasks. The dataset provides information about various factors that may affect the median value of owner-occupied homes in different suburbs of Boston.

## Dataset Description

The Boston Housing Price dataset consists of the following features:

1. CRIM: Per capita crime rate by town.

2. ZN: Proportion of residential land zoned for lots over 25,000 square feet.

3. INDUS: Proportion of non-retail business acres per town.

4. CHAS: Charles River dummy variable (1 if tract bounds river; 0 otherwise).

5. NOX: Nitric oxides concentration (parts per 10 million).

6. RM: Average number of rooms per dwelling.

7. AGE: Proportion of owner-occupied units built prior to 1940.

8. DIS: Weighted distances to five Boston employment centers.

9. RAD: Index of accessibility to radial highways.

10. TAX: Full-value property tax rate per $10,000.

11. PTRATIO: Pupil-teacher ratio by town.

12. B: 1000(Bk - 0.63)^2 where Bk is the proportion of blacks by town.

13. LSTAT: Percentage of lower status of the population.

14. MEDV: Median value of owner-occupied homes in $1000s (target variable).

## Repository Structure

- `boston\_housing.csv`: The CSV file containing the Boston Housing Price dataset.

- `boston\_housing.ipynb`: Jupyter Notebook containing data analysis and modeling code.

- `README.md`: This file, providing an overview of the repository and dataset.

## Usage

The Boston Housing Price dataset can be used for various purposes, including:

- Regression analysis

- Predictive modeling

- Feature engineering

- Data visualization

- Machine learning projects

Feel free to explore the dataset and use it for your own analysis or projects. The Jupyter Notebook (`boston\_housing.ipynb`) provides a starting point for data analysis and modeling tasks.

## License

The Boston Housing Price dataset is sourced from the UCI Machine Learning Repository and is freely available for educational and research purposes.

## Acknowledgements

The Boston Housing Price dataset was originally published in 1978 by Harrison, D., and Rubinfeld, D.L. The dataset has been widely used in the machine learning community for various regression and predictive modeling tasks.

## References

- UCI Machine Learning Repository: [https://archive.ics.uci.edu/ml/datasets/Housing](https://archive.ics.uci.edu/ml/datasets/Housing)

- Harrison, D., and Rubinfeld, D.L. (1978). Hedonic prices and the demand for clean air. Journal of Environmental Economics and Management, 5(1), 81-102.