Introduction

I built a machine learning model in this project that predicted the housing price of a house by looking at previous data.

Dataset

In [13]:
```
y = dataset.iloc[:, :-1]
print(y)
```

```
        CRIM    ZN  INDUS  CHAS    NOX     RM   AGE     DIS  RAD    TAX  \
0    0.00632  18.0   2.31   0.0  0.538  6.575  65.2  4.0900    1  296.0
1    0.02731   0.0   7.07   0.0  0.469  6.421  78.9  4.9671    2  242.0
2    0.02729   0.0   7.07   0.0  0.469  7.185  61.1  4.9671    2  242.0
3    0.03237   0.0   2.18   0.0  0.458  6.998  45.8  6.0622    3  222.0
4    0.06905   0.0   2.18   0.0  0.458  7.147  54.2  6.0622    3  222.0
..       ...   ...    ...   ...    ...    ...   ...     ...  ...    ...
501  0.06263   0.0  11.93   0.0  0.573  6.593  69.1  2.4786    1  273.0
502  0.04527   0.0  11.93   0.0  0.573  6.120  76.7  2.2875    1  273.0
503  0.06076   0.0  11.93   0.0  0.573  6.976  91.0  2.1675    1  273.0
504  0.10959   0.0  11.93   0.0  0.573  6.794  89.3  2.3889    1  273.0
505  0.04741   0.0  11.93   0.0  0.573  6.030  80.8  2.5050    1  273.0

     PTRATIO       B  LSTAT
0       15.3  396.90   4.98
1       17.8  396.90   9.14
2       17.8  392.83   4.03
3       18.7  394.63   2.94
4       18.7  396.90   5.33
..       ...     ...    ...
501     21.0  391.99   9.67
502     21.0  396.90   9.08
503     21.0  396.90   5.64
504     21.0  393.45   6.48
505     21.0  396.90   7.88

[506 rows x 13 columns]
```

Model building

1) Importing libraries

In [10]:
```
# Importing the libraries
import numpy as np
import pandas as pd
import pickle
```

2) Reading and preparing the dataset

In [11]:
```
dataset = pd.read_csv(r"C:\Users\gbore\Downloads\Flasktask\housing.csv")
```

In [12]:
```
X = dataset.iloc[:, :3]
print(X)
```

```
        CRIM    ZN  INDUS
0    0.00632  18.0   2.31
1    0.02731   0.0   7.07
2    0.02729   0.0   7.07
3    0.03237   0.0   2.18
4    0.06905   0.0   2.18
..       ...   ...    ...
501  0.06263   0.0  11.93
502  0.04527   0.0  11.93
503  0.06076   0.0  11.93
504  0.10959   0.0  11.93
505  0.04741   0.0  11.93

[506 rows x 3 columns]
```

In [13]:
```
y = dataset.iloc[:, :-1]
print(y)
```

```
        CRIM    ZN  INDUS  CHAS    NOX     RM   AGE     DIS  RAD    TAX  \
0    0.00632  18.0   2.31   0.0  0.538  6.575  65.2  4.0900    1  296.0
1    0.02731   0.0   7.07   0.0  0.469  6.421  78.9  4.9671    2  242.0
2    0.02729   0.0   7.07   0.0  0.469  7.185  61.1  4.9671    2  242.0
3    0.03237   0.0   2.18   0.0  0.458  6.998  45.8  6.0622    3  222.0
4    0.06905   0.0   2.18   0.0  0.458  7.147  54.2  6.0622    3  222.0
..       ...   ...    ...   ...    ...    ...   ...     ...  ...    ...
501  0.06263   0.0  11.93   0.0  0.573  6.593  69.1  2.4786    1  273.0
502  0.04527   0.0  11.93   0.0  0.573  6.120  76.7  2.2875    1  273.0
503  0.06076   0.0  11.93   0.0  0.573  6.976  91.0  2.1675    1  273.0
504  0.10959   0.0  11.93   0.0  0.573  6.794  89.3  2.3889    1  273.0
505  0.04741   0.0  11.93   0.0  0.573  6.030  80.8  2.5050    1  273.0

     PTRATIO       B  LSTAT
0       15.3  396.90   4.98
1       17.8  396.90   9.14
2       17.8  392.83   4.03
3       18.7  394.63   2.94
4       18.7  396.90   5.33
..       ...     ...    ...
501     21.0  391.99   9.67
502     21.0  396.90   9.08
503     21.0  396.90   5.64
504     21.0  393.45   6.48
505     21.0  396.90   7.88
```

3) Building our model

I was not able to complete the stages after this