Practical 6: Linear Regression

Q1) Predict the price of a house using Linear Regression.

Ans:

p6\_linear\_regression.py

"""

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Practical: 6

Objective: Predict the price of a house using Linear Regression.

"""

import matplotlib.pyplot as plt

import numpy as np

from sklearn import datasets, linear\_model

import pandas as pd

import io

from pathlib import Path

p= Path(\_\_file\_\_).parent/ "Housing.xlsx"

fio= io.open(p, "rb")

df = pd.read\_excel(fio)

print(df)

Y = np.array(df['price']).reshape(1, -1)

X = np.array(df['tsft']).reshape(1, -1)

# print(f"Shapes: {X.shape} {Y.shape}")

# # Plot outputs

plt.scatter(X, Y)

plt.title('Test Data')

plt.xlabel('Size')

plt.ylabel('Price')

plt.xticks(())

plt.yticks(())

# # Create linear regression object

regr = linear\_model.LinearRegression()

# # Train the model using the training sets

regr.fit(X, Y)

# # Plot outputs

plt.plot(X, regr.predict(X), color='red',linewidth=3)

plt.show()



