Linear Regression with Batch Gradient Descent

In this project you will train your model using a dataset that contains a collection of real estate listings in San Luis Obispo county to predict the housing price given the square footage of the house.

To make it simpler for this assignment, the dataset has been slightly modified. It contains the following fields:

1. MLS: Multiple listing service number for the house (unique ID).
2. Price: the most recent listing price of the house (in dollars).
3. Bedrooms: number of bedrooms.
4. Bathrooms: number of bathrooms.
5. Size: size of the house in square feet.
6. Price/SQ.ft: price of the house per square foot.

Procedure:

- Read the dataset. Choose the appropriate fields to create a 1D training set.
- Normalize the house size using the min-max scaling.
- Train the model with gradient descent.
- Plot the line.
- Print the weight vector containing the bias term and the slope.
- Predict the price of the house if the size is 5000 square feet.

Submit your python code (*.ipynb* file). Your code must run on Google Colab.

Discussing this project with other students is highly recommended but you have to submit your own solution.