Gradient Descent - Boston Dataset

Boston dataset is one of the datasets available in sklearn.

You are given a Training dataset csv file with X train and Y train data. As studied in lecture, your task is to come up with Gradient Descent algorithm and thus predictions for the test dataset given.

Your task is to:

1. Code Gradient Descent for N features and come with predictions.

2. Try and test with various combinations of learning rates and number of iterations.

3. Try using Feature Scaling, and see if it helps you in getting better results.

Read Instructions carefully -

1. Use Gradient Descent as a training algorithm and submit results predicted.

2. Files are in csv format, you can use genfromtxt function in numpy to load data from csv file. Similarly you can use savetxt function to save data into a file.

3. Submit a csv file with only predictions for X test data. File name should not have spaces. File should not have any headers and should only have one column i.e. predictions. Also predictions shouldn't be in exponential form.

4. Your score is based on coefficient of determination.