**PE03: Programming Exercise**

**Training a linear regression model using Least Square and Gradient Decent Methods**

* In this programming exercise, you will use a modified version of Kaggle’s California housing dataset. <https://www.kaggle.com/camnugent/california-housing-prices>
* All the questions are in the attached Jupyter notebook.
* Note that in question #9, you may find that the training algorithm does not converge for eta = 0.1 and eta = 0.5. Try more iterations to see if the algorithm will converge. If it doesn’t, explain why using the larger learning rates in gradient descent can either take longer to converge or not converge at all.
* **Save all your answers, including relevant function outputs and plots in the notebook.**
* **Submit the completed notebook to your instructor.**