**Assignment**

Linear regression (predicting a continuous value):

* [CalCOFI: Over 60 years of oceanographic data](https://www.kaggle.com/sohier/calcofi): Is there a relationship between water salinity & water temperature? Can you predict the water temperature based on salinity?
* [Weather in Szeged 2006-2016](https://www.kaggle.com/budincsevity/szeged-weather): Is there a relationship between humidity and temperature? What about between humidity and apparent temperature? Can you predict the apparent temperature given the humidity?
* [Weather Conditions in World War Two](https://www.kaggle.com/smid80/weatherww2/data): Is there a relationship between the daily minimum and maximum temperature? Can you predict the maximum temperature given the minimum temperature?

Instructions

* Roll No (1 to 10,and 60 to le’s)-Work with problem1
* Roll No (11 to 20,and 50 to 59)-Work with problem2
* Roll No (21 to 30,and 31 to 49)-Work with problem3

Task

* Linear regression formulae and plot the good and bad regression line
* m, c values formulas with simple data
* Various types of errors formulas in regression and R^2 with simple example
* Write a python code to develop linear regression model for the given problem with 70% training and 30% test data and find the m,c values, then predict on testing data and new samples and display the actual and predicted observations.
* Continue the python code for displaying all types of errors.
* Display the plot
* Write the above assignment task on A4 papers or separate assignment book

Link: <https://stackabuse.com/linear-regression-in-python-with-scikit-learn/>

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