# Machine Learning With Python: Linear Regression With One Variable

Predict canada's per capita income in year 2020. There is an exercise folder here on github at same level as this notebook, download that and you will find canada\_per\_capita\_income.csv file. Using this build a regression model and predict the per capita income fo canadian citizens in year 2020.

**Machine Learning With Python: Linear Regression Multiple Variables**

In exercise folder there is hiring.csv. This file contains hiring statics for a firm such as experience of candidate, his written test score and personal interview score. Based on these 3 factors, HR will decide the salary. Given this data, you need to build a machine learning model for HR department that can help them decide salaries for future candidates. Using this predict salaries for following candidates,

2 yr experience, 9 test score, 6 interview score

12 yr experience, 10 test score, 10 interview score

**Machine Learning With Python: Logistic Regression**

## Exercise

Download employee retention dataset from here: <https://www.kaggle.com/giripujar/hr-analytics>.

1. Now do some exploratory data analysis to figure out which variables have direct and clear impact on employee retention (i.e. whether they leave the company or continue to work)
2. Plot bar charts showing impact of employee salaries on retention
3. Plot bar charts showing corelation between department and employee retention
4. Now build logistic regression model using variables that were narrowed down in step 1
5. Measure the accuracy of the model