## **Machine Learning With Python: Linear Regression With One Variable**

### **Sample problem of predicting income per capita :-**

The Table represents per capita income based on years as shown in **per\_capita\_income.csv**.

*Using this build a regression model and predict the per capita income in year 2020.*

**Problem Statement**: Given above data build a machine learning model that can predict income based on years.

We can represent values in said folder table as a scatter plot (values are shown in red markers). After that one can draw a straight line(blue color) that best fits values on chart,which is actually predictable income.

income can be presented as following equation,

income = m \* (year) + b

***Generic form of same equation is***,

**y=m\*x+c** ,

where y=income , m=slope/gradient[predicttion of regression of certain year] ,x=coeffient , b=intercept

After that , save the predictable income in another said file .