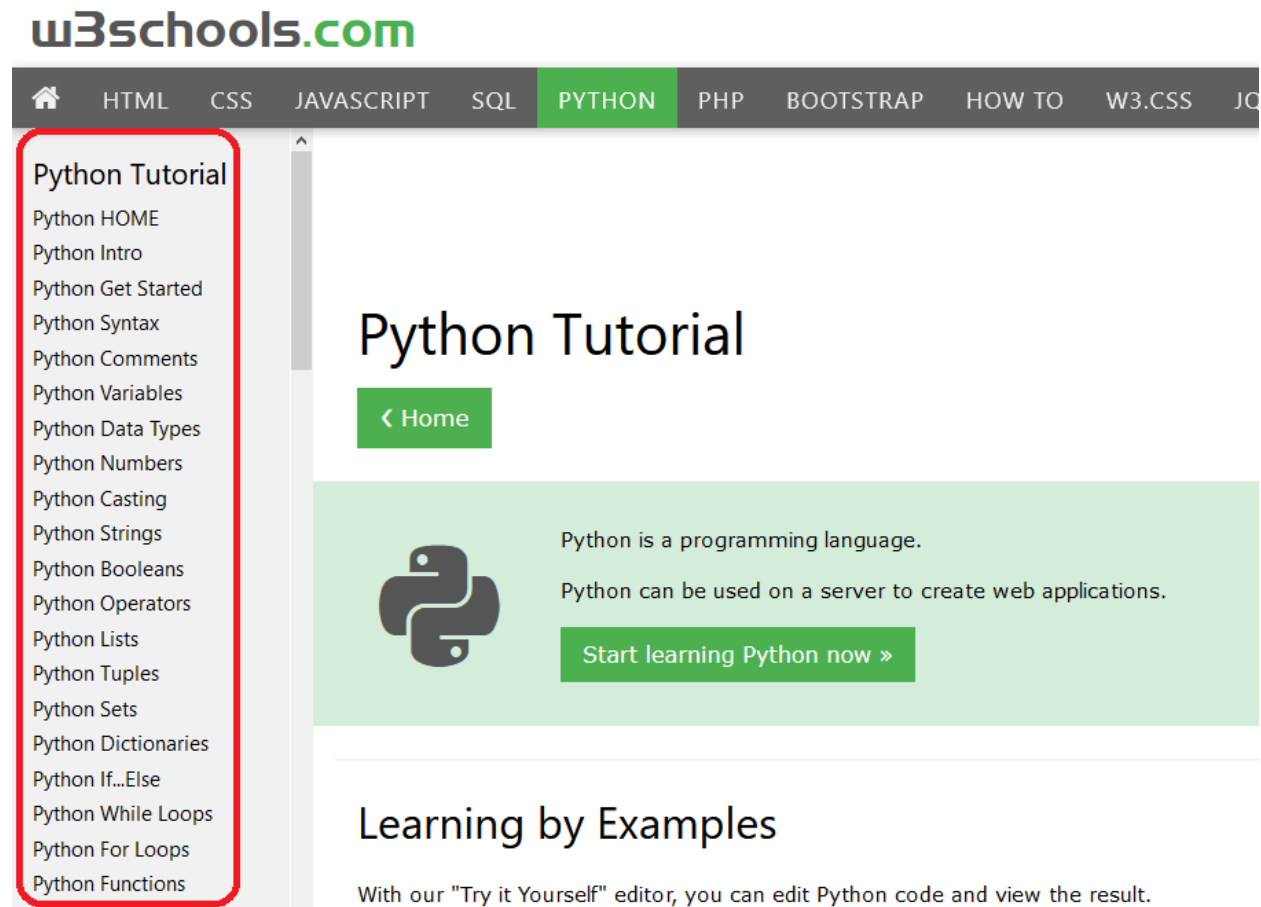1.Basic Python

For those who are not familiar with python, follow the python tutorial in the following link (focus on the tutorials in the red box):

https://www.w3schools.com/python/

2. Linear Regression Implementation

Download the advertising dataset. This is a dataset that gives us the total sales for different products, after marketing them on Television, Radio and Newspaper.

- Implement the Linear regression algorithm to predict the sales value, given three inputs (Television, Radio and Newspaper).
- Calculate the cost function after each iteration, draw cost function as a function of the iteration
- Try the program with various values for the learning rate alpha and number of iteration.'

3. Solve the problem 2 with normal equation method

4. Redo exercise 2 with regularization

5. Redo exercise 3 with regularization