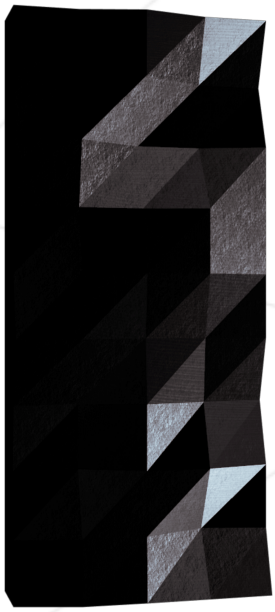

Professional training

Simple Linear Regression

Summary: In this Module, you will learn about Simple Linear Regression.

Version: 1.00

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Chapter I

Introduction

Welcome !

If you haven't already done so, read en.toolkit.pdf.

What this Module will show you:

In this module, you will learn about the practical application of simple linear regression through hands-on experience with essential libraries and tools. We will explore the utilization of programming libraries like pandas for efficient data manipulation, matplotlib for visualizing results, and potentially specialized tools like scikit-learn to streamline the implementation of regression models. This practical exposure will equip you with the skills needed to effectively apply simple linear regression to real-world datasets, bridging the gap between theoretical understanding and the technical proficiency required for successful data analysis.

Good luck to all.

Chapter II

General instructions

Unless explicitely specified, the following rules will apply every day of this Professional training.

- This subject is the one and only trustable source. Don't trust any rumor.
- This subject can be updated up to one hour before the turn-in deadline.
- The assignments in a subject must be done in the given order. Later assignments won't be rated unless all the previous ones are perfectly executed.
- Be careful about the access rights of your files and folders.
- Your assignments will be evaluated by your peers.
- You must not leave in your turn-in your workspace any file other than the ones explicitly requested By the assignments.
- You have a question? Ask your left neighbor. Otherwise, try your luck with your right neighbor.
- Every technical answer you might need is available in the `man` or on the Internet.
- By Thor, by Odin! Use your brain!!!

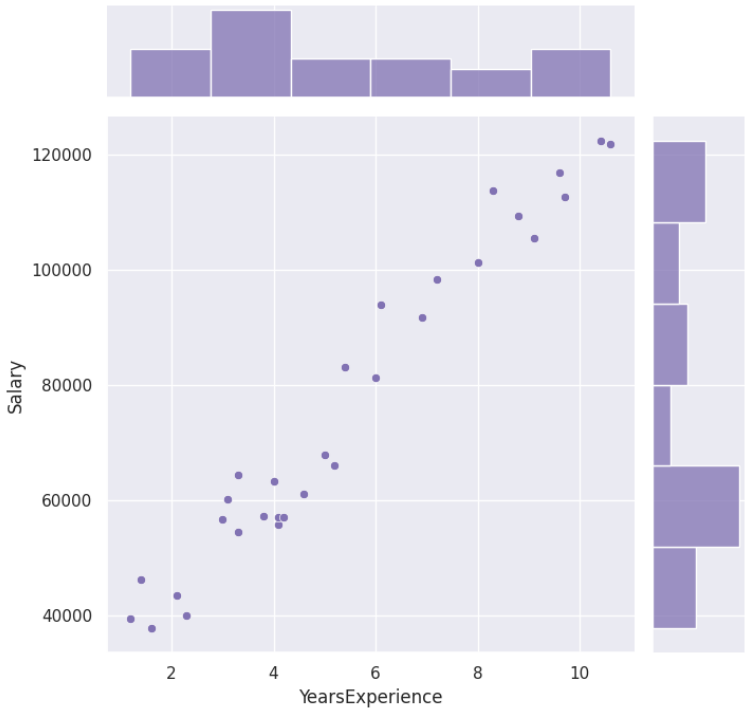
Chapter III

Exercise 00

	Exercise 00
	Displaying your data
Turn-in directory : $ex00/$	
Files to turn in : `Beginner00.ipynb`	
Allowed functions : `pandas, seaborn`	

For this first exercise, you'll need to load the data into colab and display it successfully in a graph with the distribution, you'll need to use the pandas or seaborn library.

You should have something like this:



Chapter IV

Exercise 01

	Exercise 01
	Train and Display
Turn-in directory : $ex01/$	
Files to turn in : `Beginner00.ipynb`	
Allowed functions : `pandas, seaborn, sklearn`	

For this second exercise we're going to get down to business: you'll have to train your first model.
You should then display your linear regression bar on your first graph.

You should have something like this:

Chapter V

Exercise 02

	Exercise 02
Predict	
Turn-in directory : $ex02/$	
Files to turn in : `Beginner00.ipynb`	
Allowed functions : `sklearn`	

Great, now you're going to provide a salary based on the number of years of experience.

You should find a result close to this one with 10 years of experience:

```
Predicted salary for 10 years of experience : 119347.82718107398
```

Chapter VI

Submission and peer-evaluation

- Create a `professional_training_beginner` folder at the root of your home, and move around in it.
- Create a new `module00` folder and navigate to it.

`Please note, during your defense anything that is not present in the folder for the day will not be checked.`