

	PRODUCT SHEET	Identification: Trainevo-Ficheprod-01
		Revision Date: 07/2022
		Version number: 01

Training Title: Programming with python (Advanced level)

This training allows you to deepen your knowledge of the Python programming language.

Target audience

Anyone wishing, for professional reasons, to deepen their skills in Python language.

Prerequisite:

Have notions in programming including Python.

Reference:	Category:	Duration:
Trainevo-092022-IT-07	IT	5 days
Language(s):	Training organization:	Nb of participants (min):
French		8

Goal(s)

Do Python exercises (advanced level).

Learn object-oriented programming (OOP).

Scrape data with Python (automate online data collection).

Program

Programming part 1: Reminders about Python

Programming part 2:

Classes and objects

- Introduction
- A first example: a Point class.
- Examples and algorithms

Properties of objects and methods

- Object assignment and comparison
- Local objects and their lifespan
- Case of objects passed as parameters
- Result object
- Class attributes and methods
- Standard Classes and String Class
- Examples and algorithms

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Legacy

- The notion of inheritance
- Access rights of a derived class to its base class
- Legacy and builder
- Comparison between inheritance and composition
- Successive derivations
- Examples and algorithms
- Application exercises

Programming part 3:

- Using APIs
- Discovering Web Protocols
- Send emails in Python
- Twitter to Python
- Database connection with PostgreSQL and/or Sqlite
- Create a web server in Python
- Generate HTML with Python and Flask
- Application exercises

Programming part 4:

- Scrape data on a web page
- Create web applications
- Unit testing with Python
- Application exercises
- Database management with Python
- Unit tests
- Examples
- Application exercises

Method

This course takes place in three stages:

- Presentation of the concepts
- Examples & Application Exercises
- Exercises & quizzes – correction of exercises

20% theory & 80% practice.

Evaluation:

Make a project containing all the tools discussed in class.

Submission of a certificate of attendance.