Python Basics – Online Training for Beginners

Basics for automating everyday tasks and getting started with programming – with lots of interactive exercises

Learning Python made easy: Even with basic programming skills, many processes in everyday working life can be automated. With this online training course, you start from scratch and learn how to write your own scripts and small programs in Python. You will acquire practical knowledge of the syntax as well as basic knowledge of Python concepts, methods and functions and will be equipped for a wide range of tasks - for example in data analysis, web development or software development. This online course is designed so that you can learn flexibly. In the Data Lab, you can work through the content at your own pace within the access period. You can expect videos, interactive graphics, texts, instructions and many practical exercises that you can carry out yourself online. Your learning coaches are available to answer any questions you may have.

Your curriculum

Further training in accordance with AI Regulation Art. 4 for the obligation to provide evidence of AI competence

1. Data types

- You will be working in your programming environment - the Data Lab - for the first time and executing your first code commands. You will first learn what data or texts are in Python.
- Using a set of rules, you will learn how to create, assign and test data in variables. You will then learn how to read common error messages and practise using them productively in your everyday work.
- You will get to know basic Python standard functions such as type() or str() and use them in application examples.
- Once you have become familiar with the if statement and can use it to link the execution of your code to conditions, you will conclude the chapter with the first part of a two-hour mini-project: you will program a user interface that reacts flexibly to user input.

2. Flow control

- You will learn to work with lists. This allows more flexibility when storing data and is an important prerequisite for advanced programming.
- You will use lists to extend the functionality of your user interface from the first chapter and thus complete the first mini-project.
- You will work with loops, which allow you to automatically execute your code multiple times, taking you to the next level of programming.

3. Functions, modules, methods

- You will complete your programming skills in Python and learn the first advanced techniques. This includes functions and methods.
- You will learn to define functions independently and thus structure your code better. You will also combine individual programming elements such as conditions, loops and functions in programs.
- Using various methods, you will work out how to import Python modules in the correct notation and ensure overall functionality.
- You will learn how to import and export data as a simple test. You will use a one-hour mini-project with telephone data to consolidate what you have learned in the chapter.

4. Python applications

- You will learn what dictionaries are and how they make your code even more efficient. You will learn about complex data structures that you will need for your final project.
- In a four-hour practical project to create a complex user interface for the automated processing of customer inquiries, you will bring together all the content from the previous chapters.

Your benefits

In this practice-oriented training course, you will get to know and **apply the basic concepts of Python**.

You will learn how to **write, execute and adapt your own scripts and programs** quickly and easily with Python.

You will learn all about the **use of libraries for reading, processing and saving local data**.

You will learn how to **program automation with Python** and use it in a wide variety of scenarios.

You will gain specialist knowledge about using **Python for complex data structures** and **creating simple user interfaces** for your applications.

You will not only learn theory, but also **apply the methods and techniques in many practical exercise**s and consolidate your knowledge quickly and sustainably.

The technical entry hurdles are minimized by the use of **Jupyter Notebooks**, with which you can carry out the **programming exercises directly in the browser**.

Methods

This online course offers you a particularly practice-oriented learning concept with comprehensive self-study units and a team of mentors who are available to you at all times. A new chapter is activated for you every week. With a time budget of around 8 hours per week, you are sure to reach your goal in 4 weeks. This is how you learn in the course:

Data lab: In the course's learning environment, you can expect videos, interactive graphics, text and, above all, lots of practical exercises with comprehensive datasets and coding tasks. You carry these out directly in the browser - without any installation or configuration effort and with direct success control.

Mentoring team: Your learning coaches are available to answer any questions you may have. They are experienced data analysts who will be happy to help you - via chat, audio or video call.

Webinars: Once a week, you have the opportunity to take part in webinars and immerse yourself in selected specialist data analysis topics.

Career coaching: What professional goals are you pursuing with your further training and how can you achieve them? A team of mentors will be on hand to help you achieve your career goals.

Certificate: After the final project, you will receive your official certificate as a Data Analyst with Python.

This online training course is run by our partner StackFuel GmbH. StackFuel is a specialist in the field of further training in data literacy, data science and AI.

Who should attend

This training course is aimed at anyone who would like to learn the Python programming language and use it as a versatile general-purpose language, for example in data analysis, software development or web development. The training is also very suitable for career changers without programming experience.

Training details

Training in English | Online

4 weeks (8h/week)

Start dates

30.11.2026-10.01.2027	14.12.2026-24.01.2027	11.01.-21.02.2027
25.01.-07.03.2027	08.02.-21.03.2027	22.02.-04.04.2027
08.03.-18.04.2027	22.03.-02.05.2027	05.04.-16.05.2027
19.04.-30.05.2027	03.05.-13.06.2027	18.05.-28.06.2027
31.05.-11.07.2027	14.06.-25.07.2027	28.06.-08.08.2027
12.07.-22.08.2027	26.07.-05.09.2027	09.08.-19.09.2027
23.08.-03.10.2027	06.09.-17.10.2027	20.09.-31.10.2027
04.10.-14.11.2027	18.10.-28.11.2027	02.11.-13.12.2027
15.11.-26.12.2027	29.11.2027-09.01.2028	13.12.2027-23.01.2028

Current dates and further information can be found at www.haufe-akademie.de/31380

Participation fee

€ 2.250,- excl. VAT
€ 2.677,50 incl. VAT

Your registration options

Online: www.haufe-akademie.de/31380
E-mail: anmelden@haufe-akademie.de

Book your training course quickly and easily online. Please be sure to enter the name of the participant and the full billing address with telephone number and e-mail address.

In our Questions & Answers (FAQ) section you will find all the answers to the most frequently asked questions about our training courses:
https://www.haufe-akademie.de/faqs

You can also find our detailed conditions of participation on the Internet under www.haufe-akademie.de/agb or in the overall program.
You can find the complete data protection regulations at www.haufe-akademie.de/datenschutz.