

Python for Everyone

Unlock the Power of Data in Just Half a Day!"

FA-0385

Software Development · Data & Analytics

Introduction

Discover how Python makes working with data fun, simple, and exciting—no tech background needed!

In an increasingly data-driven world, understanding how to analyze and interact with data is a valuable skill for professionals across all industries. Python, a versatile and beginner-friendly programming language, has become the go-to tool for handling data with ease and creativity.

This half-day course is tailored for non-IT professionals, introducing Python in an engaging and hands-on way. You'll learn the basics of Python, explore its potential for data tasks, and leave with practical skills you can use immediately.

Designed to be fun and interactive, this workshop ensures that everyone, regardless of their technical background, feels empowered to dive into Python.

Learning outcomes

By the end of this course, participants will:

- Understand what Python is and why it's used in data analysis.
- Write and execute basic Python scripts.
- Perform simple data manipulations using Python.
- Visualize data with user-friendly libraries.
- Gain confidence to explore Python further on their own.

Prerequisites

- A laptop with Python (and Jupyter Notebook) installed (installation steps will be provided before the course).

- Familiarity with basic computer operations (no programming knowledge required).
- Enthusiasm to learn something new!

Training outline

1. 1. Welcome and Introduction

- Overview of Python: What it is and why it's popular.
- Real-life examples of Python in non-IT fields: marketing, sales, HR, and operations.
- Course agenda and learning goals.

2. 2. Setting Up for Success

- Hands-on: Launching Python via Google Colab Notebook.
- Understanding the Python environment and interface.
- Writing your first Python command: "Hello, Python!"

3. 3. Python Basics Made Simple

- Variables: Storing data in Python.
- Data types: Strings, numbers, and lists explained in plain language.
- Hands-on: Create a mini "profile generator" using variables and lists.

4. 4. Getting to Know Data in Python

- Introduction to libraries: What are they, and why do they matter?

Exploring Pandas: The ultimate tool for data handling.

- Hands-on: Importing and exploring a real-world dataset (e.g., a simple CSV file with sales or customer data).
- Filtering and sorting data with ease.
- Quick look at NumPy: Crunching numbers without breaking a sweat.

5. 5. Visualizing Data for Insights

- Introduction to Matplotlib: Turning data into charts.

Hands-on:

- Create a simple bar chart to compare sales figures.

- Plot a line graph to observe trends over time.
- Making your visualizations clear and engaging.

6. 6. Python in Action: Mini-Project

Bring it all together with a fun, hands-on challenge:

- Analyze a small dataset to answer real-world questions (e.g., "Which product sells best in which region?").
- Create a visualization to present your findings.

7. 7. Wrap-Up and Next Steps

- Review of key takeaways.
- Recommended free resources to continue learning Python.
- Q&A and feedback session.

This workshop is led by an instructor with over 30 years of industry experience, blending real-world applications with practical exercises to ensure you walk away with skills that truly matter. Let's make Python your new favorite tool!