

Python for Data Analysts

Build Real-World Data Solutions Using Python

A practical, project-based course designed to take you from zero Python experience to confident data analysis and real-world problem solving.



Python
Programming



Data Analysis
& Visualization



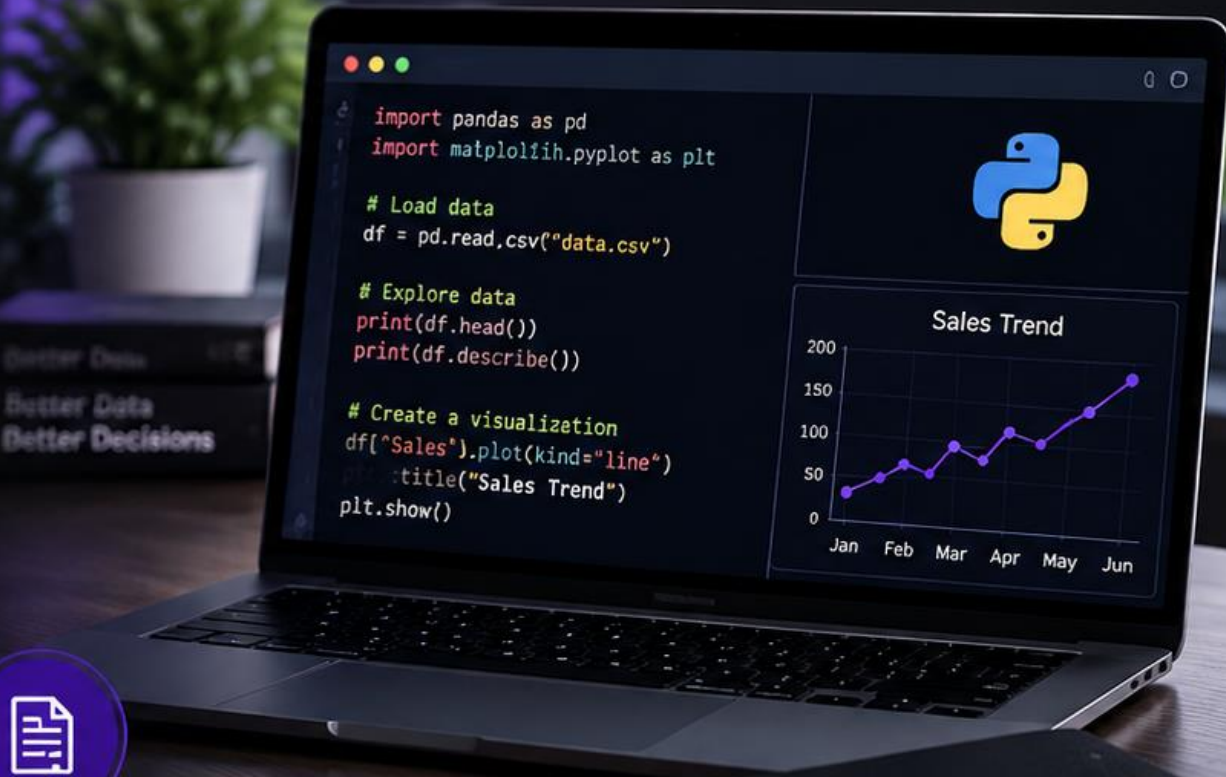
Data Cleaning
& Preprocessing



Automation
& Scripting



Real World
Projects





WHY THIS SKILL MATTERS

Why Python Has Become Essential for Data

Move beyond spreadsheet limitations into programmatic, repeatable data analytics.



RAW DATA TO BUSINESS INSIGHTS

Process complex, unformatted, or multi-gigabyte datasets that crash traditional spreadsheet tools with speed and reliability.



AUTOMATION & REPEATABILITY

Replace manual weekly reporting tasks with automated Python scripts that run cleaning, modeling, and chart generation in seconds.



END-TO-END DATA LINEAGE

Track every step of your analytical workflow from raw CSV/SQL imports to final executive recommendations with total transparency.



HIGH CAREER LEVERAGE

Mastering Pandas, NumPy, and Seaborn positions you directly for high-value Senior Data Analyst and Analytics Engineering roles.





COURSE OUTCOMES

The goal is not just writing syntax - it is thinking and executing like a data professional.

01



LOAD & EXPLORE

Connect to CSV, Excel, JSON, and SQL databases. Perform automated exploratory data analysis (EDA) to evaluate structure and quality.

03



MODEL & ANALYZE

Merge multi-table schemas with SQL-style joins, execute GroupBy aggregations, and compute business metrics and trends.

02



CLEAN & TRANSFORM

Handle missing values, isolate entity repeats, parse dates, and standardize messy text fields using string tools and Regex.

04



VISUALIZE & PRESENT

Generate publication-quality charts in Matplotlib and Seaborn to communicate clear stories and actionable findings.



WHO IS THIS COURSE FOR?

Is This Course **for You?**

Designed for professionals seeking to level up from manual analysis to programmatic data solutions.



ASPIRING DATA ANALYSTS

Build a practical, job-ready portfolio using industry-standard open-source tools required by modern data teams.



OPERATIONS & FINANCE STAFF

Automate recurring data reconciliations, financial calculations, and routine operational performance tracking.



EXCEL & POWER BI USERS

Break past formula limits and manual UI steps by adding Python scripts to your existing analytical toolkit.



FUTURE DATA SCIENTISTS

Establish a rock-solid foundation in Python programming, Pandas dataframes, and statistical computing before ML.



PREREQUISITES

What You Need to Get Started

We remove the guesswork. No prior programming knowledge is required.

01



BASIC COMPUTER LITERACY

Comfort navigating file systems, managing folders, downloading files, and operating standard desktop software.

02



CURIOSITY & LOGIC

A strong desire to solve practical business questions and explore structured data systematically.

03



HARDWARE REQUIREMENTS

A laptop/PC (Windows, Mac, or Linux) with at least 8GB RAM and stable internet access for lab environments.

04



NO CODING BACKGROUND

Zero prior experience in Python or programming required. The curriculum builds syntax step-by-step.





COURSE CURRICULUM

Your Learning Journey

A progressive 4-phase learning path engineered for maximum concept retention.

1

PHASE 1



PYTHON FOUNDATIONS

Environment setup (VS Code, Jupyter, Git), syntax, variables, data types, control logic, and functions.

2

PHASE 2



DATA WRANGLING

Pandas DataFrames, data loading (CSV, Excel, SQL), cleaning missing values, and text parsing with Regex.

3

PHASE 3



TRANSFORM & ANALYZE

Time-series operations, SQL-style merges, GroupBy transformations, and business KPI calculations.

4

PHASE 4



VISUALIZE & COMMUNICATE

Matplotlib & Seaborn chart creation, visual formatting, story framing, and final capstone project.





COURSE CURRICULUM

Complete Curriculum Breakdown

12 structured modules taking you from initial setup to production data pipelines.

01



Intro & Setup

VS Code, Jupyter, Git, Data Lineage

02



Fundamentals

Variables, Operators, Business Calculators

03



Strings & Regex

Types, String Methods, Pattern Matching

04



Logic & Loops

Conditionals, Loops, List Comprehensions

05



Functions

Reusable Code, Lambdas, Try/Except

06



Pandas Loading

Series, DataFrames, CSV/Excel/SQL

07



Exploratory Data Analysis

describe(), Missing Data, Outliers

08



Data Cleaning

fillna(), Deduplication, Regex in Pandas

09



Datetime Wrangling

pd.to, datetime, .dt Accessor, Resampling

10



Transformations

GroupBy, SQL Joins/Merges, Pivot/Melt

11



Analytical Metrics

Percentiles, Trends, Business Frameworks

12



Visualization

Matplotlib, Seaborn, Insight Storytelling





HANDS-ON PROJECTS

What You'll Build

Move beyond simple code execution build portfolio-ready analytical projects.

01



BUSINESS CALCULATOR & DATA PROCESSOR

Build custom financial functions and customer data parsing scripts utilizing core Python logic, control flow, and dictionaries.

KEY SKILLS

- ✓ Custom functions
- ✓ Data parsing
- ✓ Control flow
- ✓ Real-world business logic

02



EDA & DATA CLEANING PIPELINE

Develop automated data cleaning workflows to wrangle mismatched formats, resolve entity repeats, and log data transformations.

KEY SKILLS

- ✓ Exploratory data analysis
- ✓ Data cleaning with Pandas
- ✓ Handling missing values
- ✓ Automated workflows

03



FINAL CAPSTONE PROJECT

Independently execute the full analytical workflow: load complex enterprise data, clean and transform entity metrics, run trend analytics, create publication-grade Seaborn visualizations, and present evidence-based recommendations.

KEY SKILLS

- ✓ End-to-end data pipeline
- ✓ Advanced analytics
- ✓ Data visualization
- ✓ Executive presentation





COURSE DELIVERY

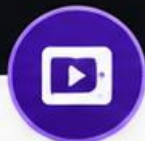
Learn by Doing, Not Just Watching

A practical, highly interactive learning loop connecting concepts directly to business scenarios.



CONCEPT

Core analytical logic & theory explained clearly with real examples.



DEMO

Live code walkthroughs showing practical implementation.



PRACTICE

Guided coding exercises with datasets and real-world tasks.



PROJECT

Real business scenarios to build portfolio-ready solutions.



PRACTICAL • PROJECT-BASED • ANALYST-FOCUSED

Every coding session is rooted in solving realistic data problems – no abstract mathematical puzzles, just pure business data analytics.



Learn
Practice
Build
Grow



Better
Data
Better
Decisions

- ✓ Ideas
- ✓ Analysis
- ✓ Code
- ✓ Build
- ✓ Real Impact



COURSE DETAILS

Your Course at a Glance

A clear view of the time commitment and technical stack.



12

COMPREHENSIVE
MODULES



40+

HOURS OF
LEARNING



5

HANDS-ON
PROJECTS

TECHNOLOGY STACK COVERED



Python



Pandas



NumPy



Matplotlib



Seaborn



Jupyter
Notebooks



VS Code



Git / GitHub





COURSE TAKEAWAYS

What You'll Walk Away With

Tangible assets and skills to immediately apply in your current or future role.



DATA CONFIDENCE

Ability to work effectively with large datasets that break conventional spreadsheet tools.



DATA LINEAGE HABITS

Structured workflows that ensure transparent, reproducible, and verifiable analysis.



VERIFIED CERTIFICATE

A certificate of completion to share on your LinkedIn and resume.



JOB-READY PYTHON SKILLS

Practical mastery of Pandas, NumPy, and Seaborn for real-world data manipulation.



PORTFOLIO ON GITHUB

A professional GitHub repository featuring 5 completed analytical projects.



AUTOMATION SCRIPTS

Reusable code templates for automated cleaning, transformation, and chart creation.





ENROLLMENT

Ready to Build **Real Data Solutions?**

Your next skill starts with your first dataset.



UPCOMING
COHORT DATES



FEE
SCHEDULES



RESERVE
YOUR SPOT



START YOUR
JOURNEY



ENROLLMENT INFORMATION

Visit our website to view upcoming cohort start dates, fee schedules, and reserve your spot:

www.behindthedashboards.com

