



PYTHON TRAINING

Api Design With Python

Learn to design and build robust RESTful APIs using Python. Master best practices for scalable and secure web services.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

-
- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This intermediate-level course, "API Design with Python", provides a concentrated, two-hour deep dive into the fundamental principles and best practices for creating robust and scalable Application Programming Interfaces using Python. Participants will learn how to design RESTful APIs, understand HTTP methods, status codes, and resource modeling, ensuring their APIs are intuitive, efficient, and easy to consume. The curriculum emphasizes practical application, guiding you through the process of structuring API endpoints, handling data, and implementing basic error management. This course is ideal for Python developers looking to elevate their backend development skills and build modern web services.

By mastering API design with Python, you will enhance your ability to connect diverse applications, facilitate seamless data exchange, and contribute to complex, distributed systems. The professional benefits extend to improved project maintainability, faster development cycles, and increased versatility in a wide range of development roles. This training from Computer Pride will equip you with the essential knowledge to architect clean, performant APIs, a critical skill in today's interconnected software landscape.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Understanding APIs and RESTful Principles

- What are APIs and their importance in modern software
- Introduction to REST architectural style
- HTTP methods: GET, POST, PUT, DELETE
- Status codes and their meanings
- Resource-based design and URL structuring

02 Module 2: Designing API Endpoints with Python

- Planning API resources and data models
- Structuring API responses (JSON)
- Handling request data and parameters
- Basic data validation strategies

03 Module 3: Implementing API Logic

- Setting up a basic Python web application for API (e.g., using Flask micro-framework concepts)
- Implementing GET requests for data retrieval
- Implementing POST requests for data creation
- Introduction to error handling in APIs

04 Module 4: API Best Practices and Future Steps

- Versioning strategies for APIs
- Basic concepts of API authentication (e.g., API keys, token-based)
- Introduction to API documentation tools and concepts (e.g., OpenAPI)
- Next steps: exploring advanced Python API frameworks

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Backend Python Developer specializing in API Development**
- > **Software Engineer (API Services)**
- > **Integration Engineer**

FREQUENTLY ASKED QUESTIONS

Q: What level of Python proficiency is required to benefit most from this API Design course?

This course is designed for intermediate Python developers. You should have a solid understanding of Python fundamentals, including functions, classes, data structures (lists, dictionaries), and basic object-oriented programming concepts. Prior exposure to web development concepts, even basic HTML/CSS, would be beneficial but not strictly required.

Q: What specific practical skills will I acquire that are directly applicable to building web services?

Upon completion, you will be able to design, implement, and structure robust RESTful APIs using Python, understand and correctly apply HTTP methods and status codes, and manage data serialization (JSON) effectively. You'll gain practical experience in building API endpoints for data retrieval and creation, setting a strong foundation for developing scalable and maintainable web services.

Q: Does this course cover specific Python API frameworks like Django REST Framework or FastAPI in detail?

Due to its concise 2-hour duration, this course focuses on the core principles of API design and implementation using vanilla Python and lightweight examples (e.g., concepts from micro-frameworks like Flask). While the foundational knowledge gained is directly transferable to any Python API framework, it does not delve deeply into the specific syntax or features of Django REST Framework, FastAPI, or similar tools. The aim is to provide a solid conceptual understanding that will make learning any framework much easier.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

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Take the next step in your technology career.

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