



PYTHON TRAINING

Python Web Development

Master Python web frameworks like Django and Flask to build powerful, scalable web applications.

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 Python Web Development course at Computer Pride is meticulously designed for individuals eager to leverage Python's robust capabilities to build dynamic, scalable, and secure web applications. Moving beyond foundational Python knowledge, participants will dive deep into modern web development practices using popular frameworks such as Flask and an introduction to Django. The curriculum emphasizes hands-on learning, guiding you through the entire process of developing interactive web interfaces, managing data persistence with databases, and deploying your applications.

You will master the art of crafting elegant backend logic, integrating with relational databases, and building RESTful APIs to power both traditional web applications and single-page applications. The course also covers essential frontend interaction using HTML, CSS, and basic JavaScript to create a seamless user experience. By the end of this program, you will possess a comprehensive toolkit to transform ideas into fully functional web solutions, significantly enhancing your professional portfolio and marketability in the rapidly evolving tech industry. This certification not only equips you with practical coding skills but also fosters a problem-solving mindset crucial for a successful web development career.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Foundations of Python Web Development

- HTTP Protocol and Web Concepts
- Introduction to Web Frameworks (Flask vs. Django overview)
- Setting Up Your Development Environment (Virtual Environments, VS Code)
- Basic Flask Application Structure
- Routing and View Functions in Flask

02 Module 2: Building Interactive Web Interfaces

- Jinja2 Templating Engine
- Handling Forms and User Input (WTForms)
- Static Files (CSS, JavaScript, Images) Integration
- Session Management and Cookies

03 Module 3: Data Persistence with Databases

- Introduction to Relational Databases (SQLite, PostgreSQL concepts)
- Object-Relational Mappers (ORMs) – SQLAlchemy in Flask
- Defining Models and Database Migrations
- Performing CRUD Operations (Create, Read, Update, Delete)

04 Module 4: RESTful APIs and Frontend Integration

- Understanding REST Principles
- Building RESTful APIs with Flask-RESTful/Blueprint
- JSON Serialization and Deserialization
- Basic JavaScript for Frontend Interactivity
- Consuming APIs from the Frontend

Module 5: User Authentication and Deployment Fundamentals

- 05**
- Implementing User Registration and Login
 - Password Hashing and Security Best Practices
 - Role-Based Access Control (RBAC) concepts
 - Error Handling and Debugging
 - Introduction to Deployment (Heroku/Render concepts, Gunicorn/Waitress)

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Python Backend Developer**
- > **Flask/Django Web Application Developer**
- > **API Development Specialist (Python)**

FREQUENTLY ASKED QUESTIONS

Q: What are the prerequisites for enrolling in this Python Web Development course?

To maximize your learning experience in this intermediate Python Web Development course, a solid understanding of fundamental Python programming concepts is essential. This includes familiarity with data types, control flow (loops, conditionals), functions, and basic object-oriented programming (classes and objects). Prior experience with HTML and CSS is beneficial but not strictly required, as relevant concepts will be briefly introduced.

Q: Which specific Python web frameworks will be covered, and why were they chosen?

This course primarily focuses on the Flask framework, known for its lightweight and flexible nature, making it ideal for learning core web development concepts and building microservices or smaller applications rapidly. We will also provide an introductory overview of Django, highlighting its robust, 'batteries-included' philosophy for larger, more complex projects. This dual approach ensures you gain practical skills with a versatile microframework while also understanding the architecture of a full-stack framework, preparing you for a broader range of development opportunities.

Q: Will I build a complete project during the course, and how can I showcase my skills afterward?

Absolutely! A significant portion of this course involves hands-on project-based learning. You will work on developing a functional web application from scratch, applying all the concepts learned, from database integration and API development to user authentication. Upon completion, you will have a tangible project to add to your professional portfolio, serving as concrete evidence of your Python web development capabilities and making you more attractive to potential employers. We also provide guidance on extending and deploying your project post-course.

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

READY TO ENROL?

Take the next step in your technology career.

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