



PYTHON FULL STACK

PYTHON . OOP . DATABASES
DJANGO . FASTAPI . REST . API
CT . TESTING . DEPLOYMENT

DURATION

120 Hours

LEVEL

**Beginner to
Advanced**

MODULES

9

MODE

**Classroom ·
Online · Hybrid**

01 COURSE OVERVIEW

A Python full stack course covering Django, FastAPI and a

JavaScript front end. Learners build with both Django (batteries-included, admin, ORM, templates) and FastAPI (typed, async, API-first), so they can pick the right tool per project. A React client, testing and deployment complete the stack.

The capstone is a deployed application with an admin back office and a public API.

WHO IT IS FOR

Graduates targeting Python developer roles

Analysts and scripters moving to applications

Django or Flask users formalising their skills

Freelancers building client tools

PREREQUISITES

Basic programming logic. Python is taught from fundamentals.

02 LEARNING OUTCOMES

01 Write idiomatic Python with modules and virtual environments.

03 Build Django views, templates, forms and admin.

05 Authenticate users with sessions and tokens.

07 Test with pytest and deploy behind a production server.

02 Model data with the Django ORM and migrations.

04 Build typed async APIs with FastAPI and Pydantic.

06 Consume APIs from a React front end.

03 MODULE STRUCTURE

9 MODULES

01 PYTHON FOUNDATIONS

Syntax

Functions

Modules

pip

LAB

CLI UTILITIES

Data structures

Comprehensions

Virtual environments

02 OBJECT-ORIENTED PYTHON

Classes

Dunder methods

Typing

Context managers

Inheritance

Dataclasses

Exceptions

03 DATABASES AND SQL

Relational modelling

Joins

PostgreSQL basics

LAB

SCHEMA DESIGN

SQL queries

Indexes

SQLAlchemy overview

04 DJANGO FUNDAMENTALS

Projects and apps

Views

Templates

Admin

LAB

BLOG APPLICATION

Models and migrations

URLs

Static files

05 DJANGO ADVANCED

Forms

Authentication

Signals

Pagination

LAB

API WITH DRF

Class-based views

Permissions

Django REST Framework

06 FASTAPI

Path and query parameters

Dependency injection

Background tasks

LAB

TYPED ASYNC API

Pydantic models

Async endpoints

OpenAPI docs

07 FRONT END INTEGRATION

React components and hooks

Fetching and caching

Auth token handling

LAB

FRONT END FOR THE API

Routing

Forms

08 TESTING AND QUALITY

pytest

Factories

Linting with ruff

Fixtures

Coverage

Type checking with mypy

09 DEPLOYMENT

Gunicorn and Uvicorn

Static and media files

Docker

Nginx

Environment configuration

CI deployment

PROJECT

DEPLOYED PYTHON FULL STACK APP

04 ASSESSMENT & CERTIFICATION

Module assignments and labs	25%
Mini projects	20%
Internal assessments	15%
Final project and review	40%

CERTIFICATION

Learners who complete all modules, submit the final project and clear the review receive a course completion certificate from Kaizen Infinities Private Limited. Project work is documented for the learner's portfolio, and interview preparation is included in the closing sessions.

05 CAREER OUTCOMES

ROLES THIS PROGRAMME PREPARES FOR

PYTHON FULL STACK DEVELOPER

DJANGO DEVELOPER

FASTAPI DEVELOPER

BACKEND ENGINEER

SOFTWARE ENGINEER

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