

# Full Stack Web Development with Python and Django (TTPS4860)

**Category:** Software Development & Programming | **Vendor:** Trivera Tech

**Duration:** 40.00 hours (5 days)

32.5 CPD Hours

**Rating:** ★ 4.6 (5,878 reviews)

## Course Information

**Delivery Format:** Instructor Led - Online

## Course Overview

Introduction to®Full Stack Web Development with Python and Django®is a five-day hands-on course that teaches students how to develop Web applications using the Django framework. As an integral part of our®Full Stack Web Developer Boot Camp®series, this course teaches you the basics of creating basic applications using the MVC (model-view-controller) design pattern, as well as more advanced topics such as administration, session management, authentication, and automated testing.

## About This Course

Geared for web developers new to Python, Introduction to Full Stack Web Development with Python and Django is a fiveday hands-on course that teaches students how to develop Web applications using the Django framework. As an integral part of our Full Stack Web Developer Boot Camp series, this course teaches you the basics of creating basic applications using the MVC (model-view-controller) design pattern, as well as more advanced topics such as administration, session management, authentication, and automated testing. This comprehensive, practical course provides an in-depth exploration of working with the programming language, not an academic overview of syntax and grammar. Students will immediately be able to use Python to complete tasks in the real world.

Course Topics: This is the high-level list of topics covered in the course. See below for detailed sessions, lessons and labs:

- The Python Environment
- Getting Started
- Flow Control
- Lists and Tuples
- Working with Files
- Dictionaries and Sets
- Functions
- Errors and Exception Handling
- Using Modules
- Classes
- Django Architecture
- Configuring a Project
- Adding an Application
- Using the Admin interface
- Basic Views (AKA Controllers and Templates)
- Querying the Models
- Working with Templates
- Forms
- Automated Testing

## Who Should Attend

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This is an introductory-level course geared for anyone new to Python who wants to use Python and Django in full stack web development projects. Prior scripting or development experience is required.

# Learning Outcomes

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**Upon successful completion of this course, participants will be able to:**

This course is approximately 40% hands-on, combining expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises. Working in a hands-on learning environment, guided by our expert team, attendees will learn to:

- Develop full-stack web sites based on content stored in an RDMS
- Use python data types appropriately
- Define data models
- Understand the architecture of a Django-based web site
- Create Django templates for easy-to-modify views
- Map views to URLs
- Take advantage of the built-in Admin interface
- Provide HTML form processing

## Detailed Course Outline

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The Python Environment

Starting Python

Using the interpreter

Running a Python script

Getting help

Editors and IDEs

Variables and values

Using variables

Built in functions

String data

Numeric data

Converting data types

Basic input and output

Writing to the screen

String formatting

Command line parameters

Reading from the keyboard

Flow Control

About flow control

Conditional expressions (if)

Relational and Boolean operators

while loops

Exiting from loops

Array-like Types

About array-like types

Lists and list methods

Tuples

Indexing and slicing

Iterating through a sequence

Sequence functions, keywords, and operators

Basic sorting

List comprehensions

Working with Files

File I/O overview

Opening files

Reading/writing files

Dictionaries and Sets

About dictionaries

Creating and using dictionaries

Getting values

About sets

Creating and using sets

Functions

Defining functions

Returning values

Arguments and arameters

Variable Scope

Sorting with functions

Errors and Logging

Exception overview

Using try/catch/else/finally

Handling multiple exceptions

Logging setup

Basic logging

Modules and Packages

Creating Modules

The import statement

Module search path

Creating packages

Introduction to Classes

About OO programming

Defining classes

Constructors

Properties

Instance methods and data

Inheritance

Django Architecture

Django overview

Minimal Django layout

Built in flexibility

Getting Started

Sites and apps

Shared configuration

Executing manage.py

Starting the project

Generating app files

App configuration

Database setup

The development server

Using cookiecutter

What is cookiecutter

Creating projects with cookiecutter

Creating models

Defining models

Adding data

Related objects

SQL Migration

Simple model access

The Admin interface

Setting up the admin user

Using the admin interface

Editing data

Querying Models

QuerySets

Field lookups

Chaining filters

Slicing QuerySets

Related fields

Q objects

Views

What is a view

HttpResponse

URL route configuration

Shortcut: `get_object_or_404()`

Templates

About templates

Variable lookups

The url tag

Shortcut: `render()`

Forms

Forms overview

GET and POST

The Form class

Processing the form

Widgets

Validation

Forms in templates

Unit Testing

Why create tests

When to create tests

Using Django's test framework

Using the test client

Running tests

Checking code coverage

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## Additional Course Details

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Nexus Humans Full Stack Web Development with Python and Django (TTPS4860) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Full Stack Web Development with Python and Django (TTPS4860) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

# Frequently Asked Questions

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## **Q: What delivery options are available for Full Stack Web Development with Python and Django (TTPS4860)?**

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
  - Traditional Instructor-Led Classroom Training (ILT)
  - On-site delivery at your offices anywhere in United Kingdom
  - Private dedicated courses customized for your team
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## **Q: How many CPD hours does this course provide?**

The 5-day Full Stack Web Development with Python and Django (TTPS4860) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

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## **Q: What is the duration of the Full Stack Web Development with Python and Django (TTPS4860) training?**

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

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## **Q: Do you provide corporate training for Full Stack Web Development with Python and Django (TTPS4860)?**

Yes, we provide corporate training, dedicated training, and closed classes for Full Stack Web Development with Python and Django (TTPS4860). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

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## **Q: What related terms do people search for?**

Popular related searches include: Python; Django; Full Stack

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**Q: Why choose Nexus Human for Full Stack Web Development with Python and Django (TTPS4860)?**

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

**Q: Are there any discount codes available?**

Yes! Use discount code **PENPAL5** when booking your Full Stack Web Development with Python and Django (TTPS4860) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

**Nexus Human**

**Professional Training & Development**

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