Course : Django, Web development with Python

Practical course - 4d - 28h00 - Ref. DJA
Price : 2100 € E.T.

★★★★★ **5 / 5**

Django is a Web MVC (Model-View-Controller) framework based on the Python language. This training course will teach you how to implement this framework and use its various modules effectively in Web application development.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ How to interface Django with a database
- ✓ Developing dynamic views
- ✓ Developing templates
- ✓ Managing Django forms
- ✓ Use the main advanced functions

Intended audience

This course is designed for developers wishing to acquire an in-depth knowledge of the basics of the Django framework.

Prerequisites

Basic knowledge of Python and Web technologies (HTML, JavaScript...)

Course schedule

1 Introduction

- Reminder of OOP principles.
- The MVC Design Pattern.
- Introducing the Django framework.
- Origin and history. Objectives and benefits.
- Django framework components.

Exercise
Preparing the environment. Installation of Python, Django with web server, RDBMS (PostgreSQL, MySQL, or other) and IDE. Create a new project.

2 Data access with Django

- The Django ORM model.
- Django models: Model, Field, Table, Column, Primary Key...
- Association mapping: OneToMany, ManyToOne, ManyToMany, OneToOne.
- Inheritance mapping strategies: Meta Class, OneToOneField, ManyToManyField...
- Data access with QuerySets.

Exercise
Develop a data access layer. Interfacing Django with the RDBMS.

3 View management

- Simple views or view functions.
- HttpResponse, HttpRequest and QueryDict classes.
- URL configuration : UrlConf.
- Generic views.
- Examples of generic views: Redirects, Create, Update, Delete...

Exercise
Developing dynamic HTML views with Django.

4 Templates

- The role of templates.
- Template creation and loading.
- Context management.
- Use tags and custom filters.
- Template reuse: inheritance between templates.

Exercise
Develop a template to facilitate presentation generation.

5 Forms management

- The benefits of Django forms.
- Forms creation.
- The different types of fields.
- Form data validation.
- Manage and customize error messages.
- Generate forms from templates.

Exercise
Develop the forms associated with the CRUD operations from the previous workshop.

6 Advanced functions

- Internationalization.
- Authentication and session management.
- Optimization and caches.
- Ajax integration.
- The administration interface.
- Unit testing.

Exercise
Integrate Ajax through a framework.

Dates and locations

REMOTE CLASS
2026 : 10 Mar., 19 May, 6 Oct., 1 Dec.

PARIS LA DÉFENSE
2026 : 10 Mar., 19 May, 6 Oct., 1 Dec.