

# 10 Weeks Django Training Syllabus

## WEEK 1: INTRODUCTION TO DJANGO AND WEB DEVELOPMENT

- Introduction to Django: History and Overview
- Setting up Django: Installation and Project Creation
- Django Architecture: MVT (Model-View-Template)

## WEEK 2: DJANGO BASICS

- Django Project Structure
- Creating Django Apps
- Django URLs and Views

## WEEK 3: : DJANGO MODELS AND DATABASES

- Django Models: Fields, Relationships
- Database Configuration
- CRUD Operations with Django Models

## WEEK 4: DJANGO TEMPLATES

- Django Template Language
- Template Inheritance
- Static and Media Files in Django

## WEEK 5: DJANGO FORMS

- Django Forms: ModelForms, Form Validation
- File Uploads with Django Forms
- Customizing Form Layouts

## WEEK 6: AUTHENTICATION AND AUTHORIZATION

- Django Authentication System
- User Registration, Login, Logout

- Permissions and User Groups

#### WEEK 7: ADVANCED DJANGO FEATURES

- Decorators and Generators
- Lambda functions and Map, Filter, Reduce
- Regular Expressions

#### WEEK 8: RESTFUL APIS WITH DJANGO REST FRAMEWORK

- Introduction to Django Rest Framework (DRF)
- Creating API Endpoints
- Serializers and ViewSets

#### WEEK 9: TESTING AND DEPLOYMENT

- Writing Tests in Django
- Django Test Client
- Deployment Checklist and Best Practices

#### WEEK 10: PERFORMANCE OPTIMIZATION AND BEST PRACTICES

- Database Optimization
- Caching in Django
- Django Debug Toolbar and Performance Monitoring

#### AFTER COURSE ASSIGNMENTS:

1. Full-Featured Django Web Application: Students will develop a complete web application using Django. This application should include user authentication, database operations, and other features learned during the course.
2. RESTful API with Django Rest Framework: Students will design and implement a RESTful API using Django Rest Framework. The API should support CRUD operations for a specific data model and be documented with clear endpoints and examples.

3. Portfolio Development: Students will create a personal portfolio website showcasing their Django projects, skills, and resume. This portfolio will serve as a platform to showcase their work to potential employers or clients.

By the end of this Django course and assignments, students should be proficient in developing scalable web applications, building RESTful APIs, and deploying Django projects. They will be well-prepared to start their careers as Django developers in the IT industry.

