

Django Web Development Internship

(15 Days | Practical-Oriented | Industry Ready)

INTERNSHIP SYLLABUS

Internship Objective

To train students in **Python Django full-stack web development** with hands-on practice, real-world projects, and deployment readiness.

DAY 1 – Python & Web Foundations

- Overview of Web Development
- Client–Server Architecture
- Python basics review (data types, functions)
- Django overview & real-world use cases

Practical:

Python environment setup

DAY 2 – Django Environment Setup

- Installing Django & Virtual Environment
- Django project structure
- Creating first Django project
- Running development server

Practical:

First Django app

DAY 3 – Django Apps & URLs

- Django apps concept
- URL routing (urls.py)
- Views (Function-based views)
- Request & response lifecycle

Practical:

Multiple page routing

DAY 4 – Templates & HTML Integration

- Django Template Language (DTL)
- Template inheritance
- Static files (CSS, JS)
- Base layout creation

Practical:

Website UI structure

DAY 5 – Models & Database (ORM)

- Django Models
- SQLite / MySQL integration
- Migrations
- Django Admin panel

Practical:

Database CRUD using ORM

DAY 6 – Forms & User Input Handling

- Django Forms
- ModelForms
- Form validation
- CSRF protection

Practical:

User input forms

DAY 7 – Authentication System

- User registration & login

- Sessions & cookies
- Password hashing
- Django auth module

Practical:

Login & signup system

DAY 8 – CRUD Application Development

- Create, Read, Update, Delete operations
- Data filtering & search
- Pagination

Practical:

Full CRUD web app

DAY 9 – Django REST Framework (Intro)

- REST API basics
- Serializers
- API views
- JSON responses

Practical:

Simple REST API

DAY 10 – API Integration

- Connecting frontend with APIs
- Fetching & posting data
- API testing using Postman

Practical:

API-based app

DAY 11 – Security & Best Practices

- Authentication vs Authorization
- SQL Injection & XSS prevention
- Secure settings
- Environment variables

Practical:

Secure app setup

DAY 12 – Project Planning

- Real-world project selection
- Requirement analysis
- Database design
- Application architecture

Practical:

Project blueprint

DAY 13 – Mini Project Development

- Backend logic implementation
- Frontend integration
- Error handling

Practical:

Project coding

DAY 14 – Deployment & Hosting

- Deployment basics
- Hosting on cloud (Intro)
- Static & media handling
- Debug vs production

Practical:

Deployment demo

DAY 15 – Evaluation & Presentation

- Project presentation
- Code review
- Viva & assessment
- Career guidance (Django roles)