

# **6-Month Full Stack Python Django Internship Syllabus**

Month 1: Web Fundamentals (Frontend Basics)

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Weeks 1–2: HTML & CSS

- HTML structure, elements, tags
- CSS selectors, box model, flexbox, grid, media queries
- Mini Projects: Portfolio, Landing Page

Weeks 3–4: JavaScript & Bootstrap

- JS basics, DOM, events, ES6
- Bootstrap components, grid, responsive design
- Mini Projects: Bootstrap Portfolio, To-Do App

Month 2: Python & OOP

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Weeks 5–6: Python Basics

- Variables, loops, functions, collections, file handling

Weeks 7–8: OOP

- Classes, objects, inheritance, polymorphism
- venv setup
- Mini Project: Student/Employee Program

Month 3: Django Framework Basics

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Week 9: Intro to Django

- Project, apps, URLs, views

Week 10: Templates & Static Files

- DTL, template inheritance, static files, Bootstrap integration

Month 4: Django Models, ORM, SQL & Auth

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Week 11: SQL + Django Models

- SQL basics, joins, constraints

- Django ORM, models, CRUD, admin

#### Week 12: Forms & Authentication

- Forms, ModelForms, login, logout, reset, messages
- Mini Project: Student Management System

#### Month 5: REST API, React & Microservices Basics

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#### Week 13: DRF

- Serializers, ViewSets, JWT, Postman testing

#### Week 14: React Basics

- Components, hooks, router, state management
- Mini Project: React To-Do App

#### Month 6: Full Stack + Docker + AWS + CMS + Odoo

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#### Week 15: React + Django Integration

- CORS, Axios, full CRUD

#### Week 16: Full Stack JWT Auth

- Access/Refresh tokens, protected routes

#### Week 17: Deployment + Docker + AWS

- Docker, Docker Compose
- AWS EC2, Nginx, Gunicorn, S3, CloudFront

#### Week 18: Advanced Topics

- Microservices basics
- CMS (Django CMS, Wagtail)
- Odoo basics (models, views, module creation)
- Final Capstone Project