

Pre-Week Study Checklist - 12 Week Bootcamp

Week 1: Python + Git + Django Setup

- ☐ Watch: What is Programming? (freeCodeCamp, Programming with Mosh)
- ☐ Read: Python Basics - variables, data types, loops, functions
- ☐ Practice: print(), input(), functions, conditionals
- ☐ Install: Python 3, VS Code, Git, GitHub account
- ☐ Read: What is Git? What is Version Control?
- ☐ Read: What is Django? What is a web framework?

Week 2: Django CRUD

- ☐ Read: What is CRUD? (Create, Read, Update, Delete)
- ☐ Read: Django Models, Views, Templates, URLs
- ☐ Understand: HTTP methods (GET, POST, PUT, DELETE)
- ☐ Explore: Django Docs - Your First App
- ☐ Watch: Django Class-Based vs Function-Based Views

Week 3: Authentication & Admin

- ☐ Read: What is Authentication vs Authorization?
- ☐ Read: Django's built-in User model
- ☐ Watch: Intro to Django Authentication
- ☐ Understand: Cookies, Sessions, Password hashing
- ☐ Explore: Django Admin interface

Week 4: Django REST Framework (DRF) APIs

- ☐ Read: What is a RESTful API?
- ☐ Understand: JSON data structure
- ☐ Read: Django REST Framework overview
- ☐ Explore: DRF Serializers, Viewsets, Routers
- ☐ Install: Postman or Thunder Client (for API testing)

Week 5: JWT & API Security

- ☐ Read: What is JWT and how does it work?

- [] Watch: JWT explained (YouTube - Fireship or Web Dev Simplified)
- [] Read: DRF SimpleJWT Setup Guide
- [] Explore: Swagger UI and OpenAPI
- [] Understand: API authentication vs web authentication

Week 6: React + Tailwind + Next.js

- [] Read: React Basics - Components, JSX, Props, State
- [] Watch: React Intro (freeCodeCamp 2-hour video)
- [] Read: What is Tailwind CSS?
- [] Read: What is Next.js and why use it?
- [] Practice: Basic React component + Tailwind styling

Week 7: Fullstack Integration

- [] Read: What is Axios and how does it work?
- [] Read: React Hook Form basics
- [] Read: How to use JWT in the frontend
- [] Watch: Consuming APIs in React
- [] Understand: Fetch vs Axios, storing tokens

Week 8: Redis + Celery + Async

- [] Read: What is Redis? What is Celery?
- [] Watch: Celery + Django intro (VeryAcademy or Code With Stein)
- [] Understand: Sync vs Async tasks
- [] Explore: Use cases - email sending, file processing
- [] Install: Redis on local machine or Docker

Week 9: File Uploads + Roles

- [] Read: How FileField & ImageField work in Django
- [] Explore: Cloudinary or AWS S3 file storage
- [] Understand: Role-Based Access Control (RBAC)
- [] Read: Django's Group and Permission system
- [] Watch: File Uploads with Django

Week 10: Docker + CI/CD

- [] Read: What is Docker and Docker Compose?
- [] Watch: Docker for Beginners (YouTube - TechWorld with Nana)
- [] Read: What is CI/CD? Why is it used?
- [] Explore: GitHub Actions for automation
- [] Install: Docker Desktop

Week 11: Deployment + Production

- [] Read: What is a Web Server, DNS, SSL, HTTPS?
- [] Read: What are Railway, Render, Vercel?
- [] Watch: Fullstack App Deployment to Vercel and Render
- [] Understand: .env, secrets, PostgreSQL hosting
- [] Read: Reverse Proxies (NGINX), Load Balancing basics

Week 12: SaaS Capstone (Local Services Aggregator)

- [] Read: What is a SaaS product?
- [] Read: Fiverr/Thumbtack architecture breakdown
- [] Understand: Multi-role systems and booking flows
- [] Review: Async background scoring and filtering
- [] Explore: Real-world job-matching algorithms (basic level)