Web Development Using Python – 5-Day Plan

Day 1: Introduction to Web Development with Python

- Overview of Web Development

- Understanding Frontend vs Backend

- Setting Up a Development Environment

    o Installing Python

    o Virtual Environments (venv)

    o Installing pip and Required Packages

- Introduction to Flask & Django (Choosing a Framework)

- Running a Simple Flask/Django App

Day 2: Working with Flask (or Django Basics)

- Setting Up a Flask Project (or Django Project)

- Understanding Routes & Views

- Handling Requests & Responses

- HTML Templates with Jinja2 (Flask) or Django Templates

- Static Files (CSS, JS, Images) in Flask/Django

Day 3: Handling Forms & Databases

- Handling Forms in Flask/Django

- GET vs POST Requests

- Working with SQL Databases

    o Using SQLite with Flask

    o Django ORM for Database Management

- CRUD Operations (Create, Read, Update, Delete)

Day 4: Authentication & API Development

- User Authentication (Login, Signup, Logout)

- Flask-Login (Flask) / Django Authentication System

- Building RESTful APIs with Flask/Django REST Framework (DRF)

- Consuming APIs in a Web App

Day 5: Deployment & Advanced Features

- Deploying a Flask/Django App (Heroku, AWS, Render)

- Environment Variables & Security Best Practices

- Caching & Performance Optimization

- Introduction to WebSockets & Real-time Applications