**Web Technology Course Plan: Python (3 Days)**

Daily Schedule:

* Session 1: 9:00 AM – 10:30 AM
* Tea Break: 10:30 AM – 10:45 AM
* Session 2: 10:45 AM – 12:30 PM
* Lunch Break: 12:30 PM – 1:30 PM
* Session 3: 1:30 PM – 3:00 PM
* Tea Break: 3:00 PM – 3:15 PM
* Q&A/Recap: 3:15 PM – 4:00 PM

Day 1: Introduction & Frontend Development

Session 1: Introduction to Web Technologies

* Overview of Web Development
* Client-Server Architecture
* HTTP/HTTPS Protocols
* Introduction to Full-Stack Development

Session 2: HTML & CSS Basics

* HTML5 (Forms, Tables, Multimedia, Semantic Tags)
* CSS3 (Selectors, Flexbox, Grid)
* Responsive Design (Bootstrap/Tailwind CSS)

Session 3: JavaScript for Enhanced UI (Optional)

* Basics of JavaScript (ES6+ Features)
* DOM Manipulation
* AJAX & Fetch API for Asynchronous Communication

Day 2:

Backend Development Python

Session 1:

* Interaction with service layer and dao layer
* Setting up database with python with MySQL/PostgreSQL
* CRUD Operations using python

Session 2: Python Backend (Flask/Django Approach)

* Introduction to Python Web Frameworks
* Setting up Flask/Django

Session 3

* CRUD Operations with Python and SQL
* Buffer time to talk about web services again and unit testing..

Day 3:

Database Integration, Security & Deployment   
Session 1: Backend-Database Integration

* Using MySQL Connector or SQL Alchemy in Python
* Query Optimization and Error Handling

Session 2: Authentication & Security

* User Authentication (Login, Registration)
* Password Hashing (BCrypt, SHA)
* Session Management (Cookies, JWT)
* SQL Injection & Prevention Techniques

Session 3: Hosting, Deployment & Mini Project Planning

* Deploying Python Apps (Flask/Django on Heroku, AWS, DigitalOcean)
* Database Deployment (MySQL on Cloud, Firebase, PostgreSQL)
* Mini Project Planning: Requirement Analysis & Schema Design

Mini Project Examples:

* Student Management System (Python-Flask + MySQL)
* Library Management System (Django + PostgreSQL)
* Online Examination System (Python Flask/Django + MySQL)
* E-commerce Product Management (Python Flask + PostgreSQL)