

Tech Sessions Details

Overview

- **Total Duration:** 45 to 50 hours of classroom teaching focused on backend development using Python and Django.
- **Projects:** Collaborative building of two advanced projects—an **ERP (Enterprise Resource Planning) software** and a **CRM (Customer Relationship Management) software**.
- **Hands-On Practice:** Each module includes practical exercises to reinforce learning.
- **Industry-Level Experience:** Students will gain experience in project collaboration and development practices akin to industry standards.
- **Certification:** Participants will receive an experience certificate acknowledging their project contributions.
- **Project-Based Learning:** Emphasis on applying theoretical knowledge to real-world projects.
- **Team Structure:** Students will be organized into domain-specific teams (Frontend, Backend, Design, etc.) to simulate a professional development environment.

Course Structure and Estimated Time

Sr. No.	Topic	Duration (In Hours)
1	Introduction of the Session and Content Brief	2 Hours
2	Python	6 to 8 Hours
3	Git and GitHub - Version Control	2 Hours
4	Web Technology	2 to 3 Hours
5	Database Management Systems (DBMS)	3 to 4 Hours
6	Django Framework	12 Hours
7	ERP and CRM Project Explanation	4 Hours
8	Final Project Building	12 to 15 Hours
	Total Hours	43 To 50 Hours

Final Projects

ERP & CRM Software Project Planning

Project 1: College ERP System

Modules:

1. User Management

- Admin, Faculty, and Students registration and login
- Role-based access control

2. Course Management

- Create, update, delete courses
- Student enrollment and course assignments

3. Attendance Management

- Track student attendance
- Faculty can update and view attendance records

4. Examination Module

- Store student grades
- Generate reports and transcripts

5. Notifications System

- Announcements from admin and faculty to students

6. Timetable and Scheduling

- Faculty can create and manage class schedules
- Students can view their timetables
- Automatic conflict resolution (e.g., overlapping classes)
- Special events scheduling (e.g., seminars, workshops)

7. Report and Analytics Dashboard

- Visualize student performance (attendance, grades)
- Faculty workload and efficiency reports
- Fee collection and financial reports for admins
- Attendance analytics for detecting patterns (e.g., low attendance)

Project 2: CRM for College Management

Modules:

1. Contact Management

- Manage leads for admissions
- Contact details and interaction tracking

2. GFM Module

- GFM student management
- Student profile management
- Meetings scheduling and tracking
- Parent contact management and follow-up tracking

3. Admission Tracking

- Track students from inquiries to admissions
- Automate follow-ups

4. Student Feedback System

- Feedback collection from students
- Report generation for admin and faculty review

5. Alumni Management

- Database of past students
- Interaction and events for alumni

6. Document Management

- Upload and store important documents (e.g., application forms, ID proofs)
- Generate automated forms for admissions, course selections, etc.
- Secure file sharing between departments

Budget

- **Teaching Fee:** ₹1,000 per hour for approximately 50 hours.
- **Batch Size:** 30 to 40 students to ensure quality hands-on practice.
- **Project Management Fee:** Additional ₹10,000 for overseeing project development outside of classroom teaching.
- **Total Estimated Budget: ₹60,000**

Justification: The budget accounts for comprehensive teaching hours, ensuring each student receives personalized attention and support. The additional project management fee covers the extra time and resources required to facilitate successful project completion, including mentorship, code reviews, and team coordination.