# Project Design Phase-II
# Technology Stack (Architecture & Stack)

| Date | 15 February 2026 |
|---|---|
| Team ID | LTVIP2026TMIDS79115 |
| Project Name | Cafeteria Menu Display |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

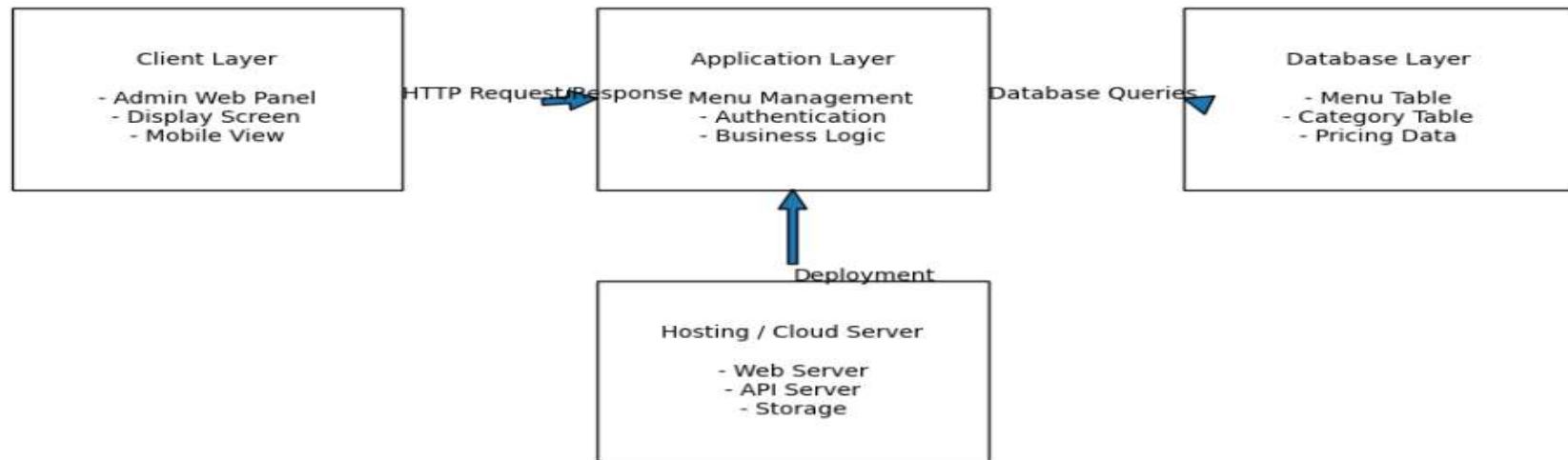Technical Architecture - Cafeteria Menu Display System

**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1 | User Interface | How cafeteria staff and customers interact with the system. | HTML, CSS, JavaScript |
| 2 | Application Logic-1 | Automated fetching and rendering of menu items on display. | JavaScript Fetch API |
| 3 | Application Logic-2 | Admin authentication and menu management operations. | Python Flask(Backend) |
| 4 | Application Logic-3 | Auto-refresh functionality every 5 minutes. | JavaScript setInterval |
| 5 | Database | Core tables for storing users, categories, and menu items. | MySQL Relational Database |
| 6 | Local Server | Centralized hosting of application and database. | Localhost / Flask Development Serve |
| 7 | Infrastructure | Application development and deployment environment. | VS Code, XAMPP, Git |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1 | Open-Source Frameworks | Scripting and UI frameworks utilized by the platform. | Flask, Bootstrap, jQuery |
| 2 | Security Implementations | Access controls for admin panel and sensitive menu data. | Session Management, Password Protection |
| 3 | Scalable Architecture | 3-tier architecture separating UI, Logic, and Data layers. | Frontend (HTML/CSS/JS) + Backend (Flask) + Database (MySQL) |
| 4 | Availability | Accessibility of the cafeteria menu system. | Local Network / Localhost |
| 5 | Performance | Efficiency of real-time menu updates and auto-refresh. | Asynchronous JavaScript, Optimized Database Queries |