ATTENDANCE MANAGEMENT SYSTEM

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A web-based Solution for the employee attendance tracking

GDTC LLP

System Architecture

Frontend (Angular) → Handles UI and API integration.
Backend (Spring Boot, Java) → Manages business logic and API.
Database (MySQL) → Stores user and attendance records.
Integration: RESTful APIs for smooth data exchange.
Libraries: Chart.js for graphical reports,
FullCalendar for attendance scheduling and event management.

Key Feature

User Authentication: Secure Login and registration

Attendance Management: Employees can mark daily attendance.

Leave Management: Employees can request leaves, and managers can approve/reject.

Data Visualization: Attendance trends using Chart.js.
Monthly calendar view using FullCalendar.

Dynamic Nature: We have tried Everything to make our site and features fully dynamic and user based

Extras: Filtering, Sorting, Search with Autocomplete and fully Angular material based - Data Validation

User Flow & UI Demonstration

Login/Register Page: User authentication with secure credentials.

Attendance Marking: Employees can mark their daily attendance.

Calendar: Overview of attendance, recent attendance timing logs.

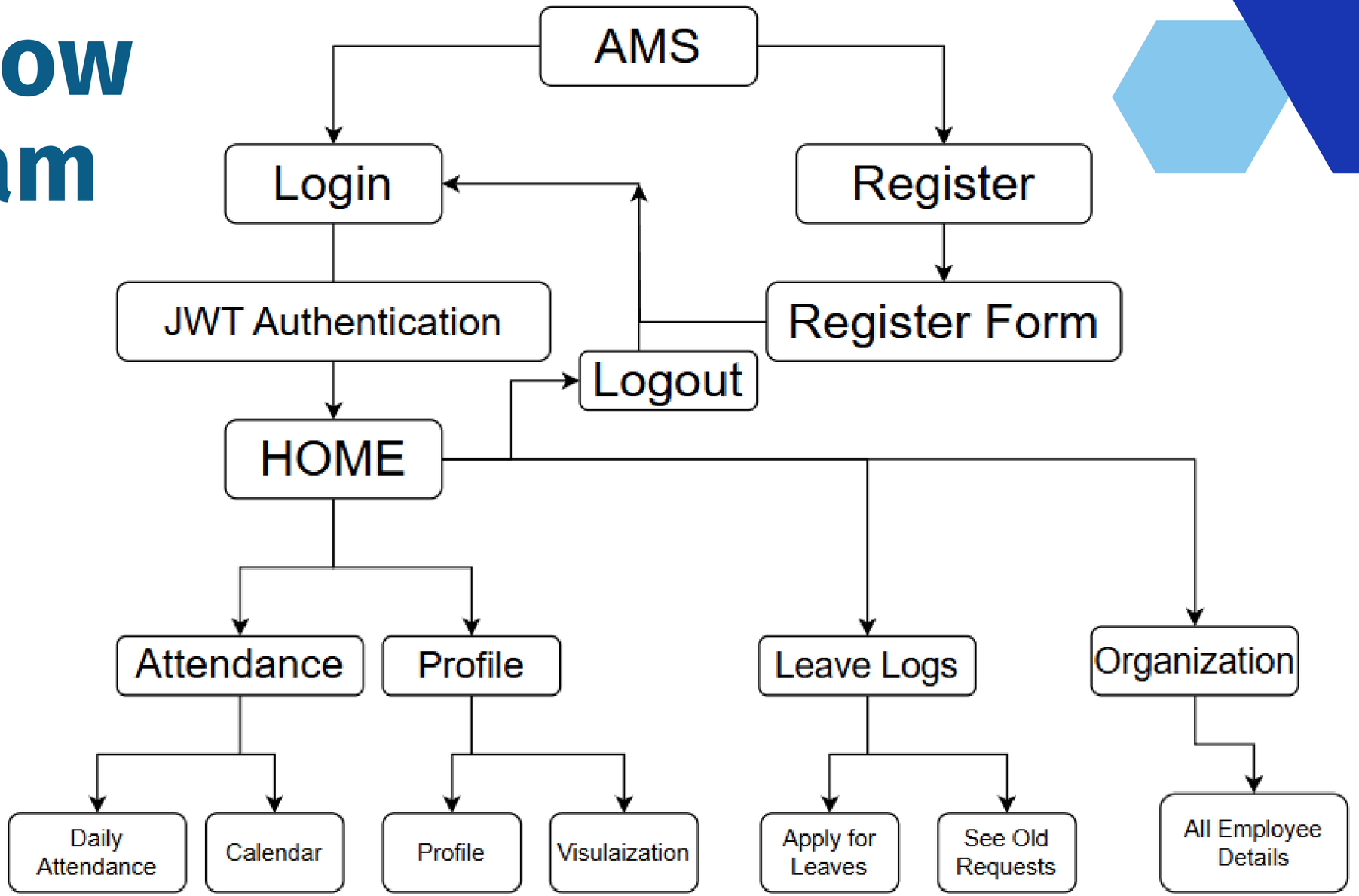
Leave Request Panel: Submit/Edit and track leave applications.

Profile Panel: Manage and See Employee data and Its Various Visualization over data and statistics.

Organization: See all Employees of Organization.

Logout: For ending a session and cleaning out the local Storage

User Flow diagram



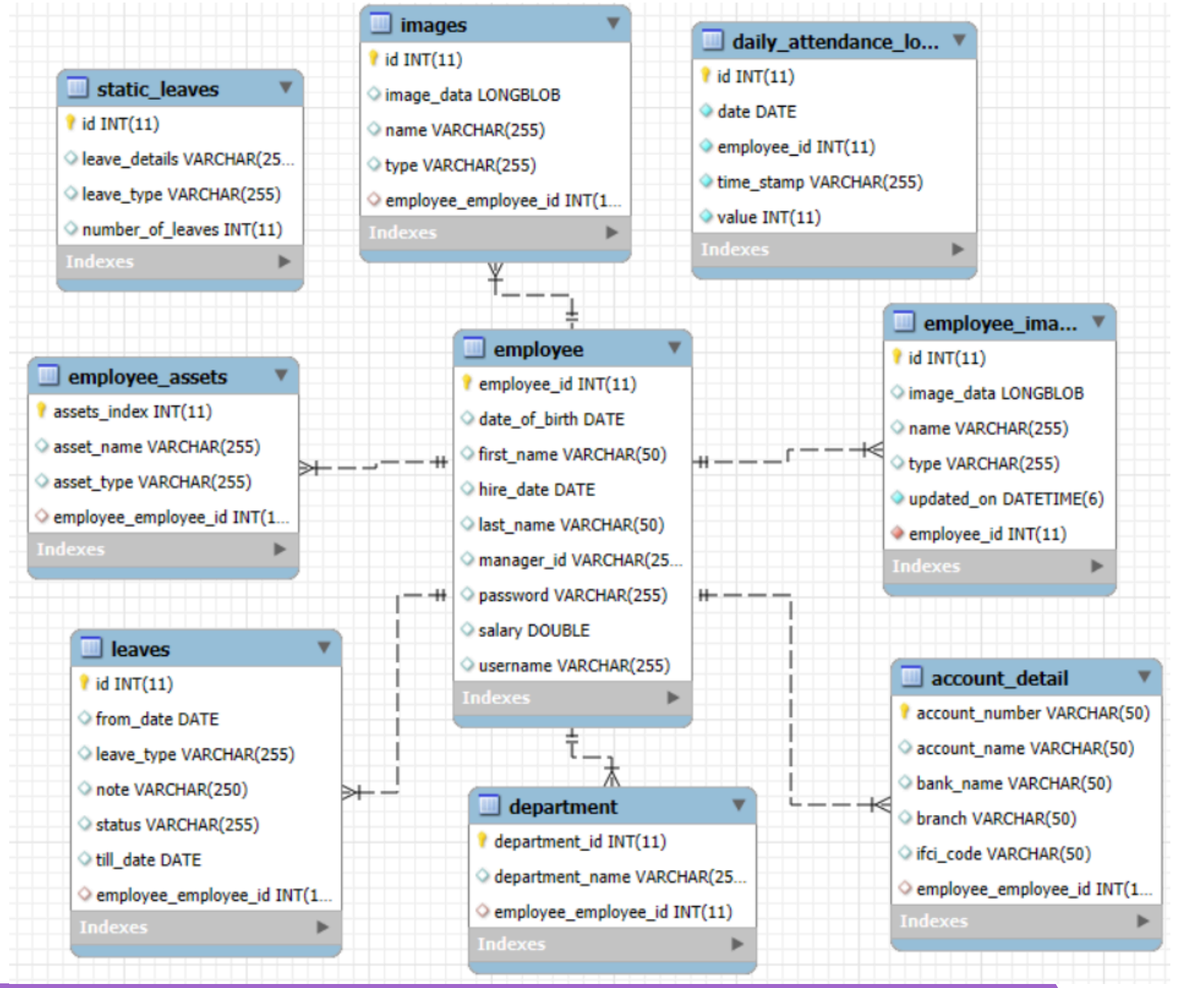
Database Architecture and MySQL Tables

Employee Table

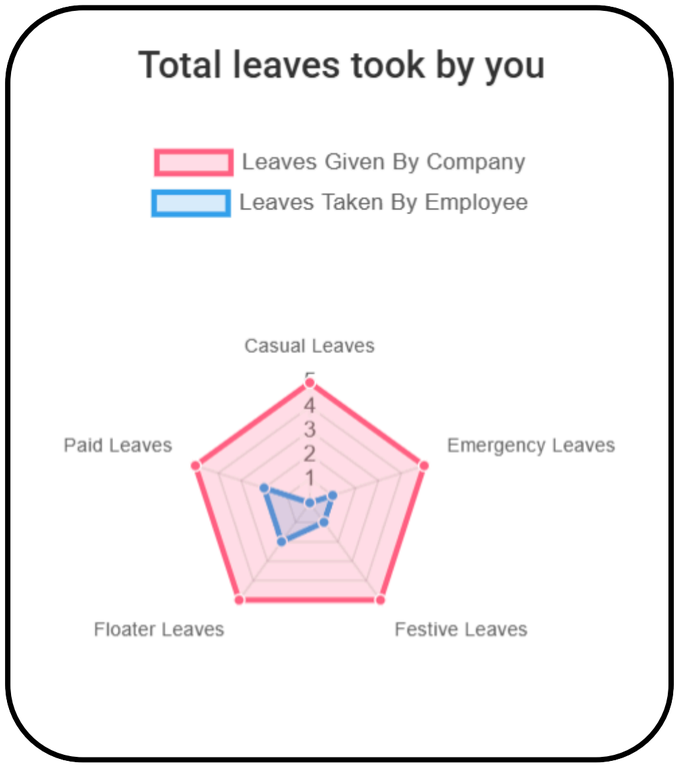
Employee Details Table
Leaves Table
Account Details Table
Department Table
Employee Assets Table
Employee Images Table

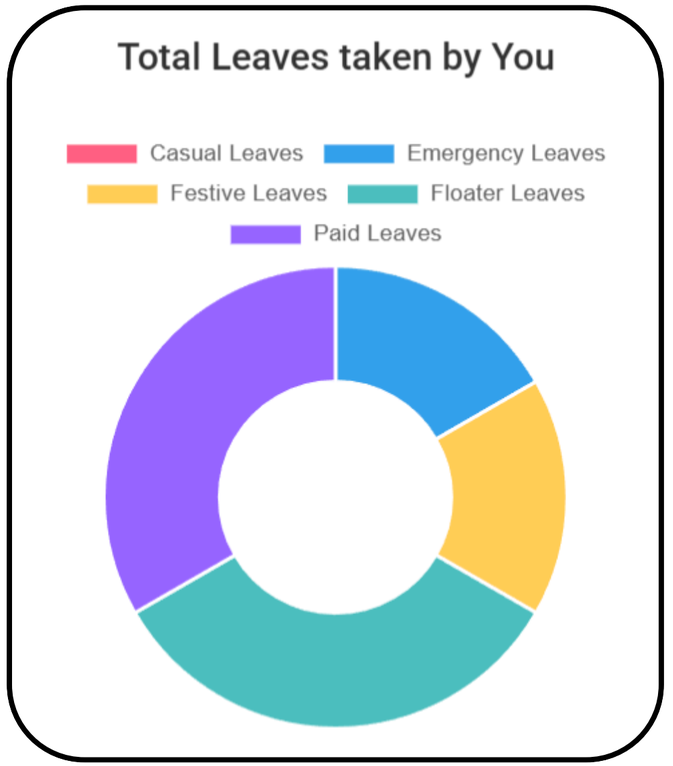
Daily Leaves Attendance Table

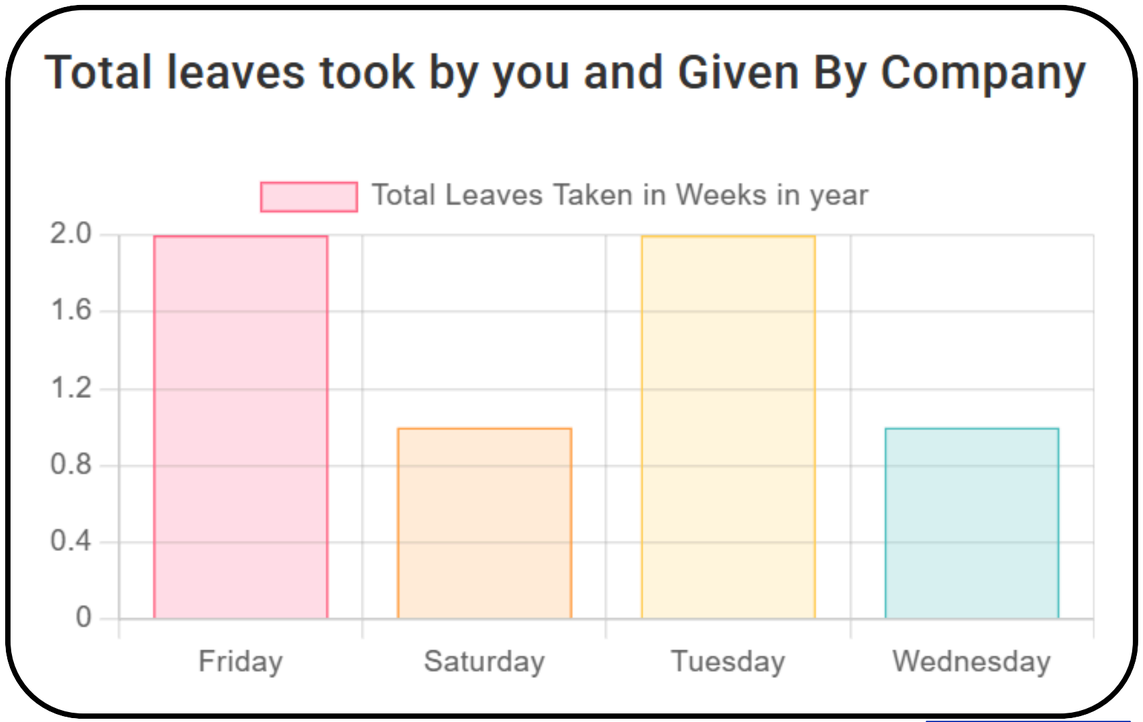
Static Leaves Table



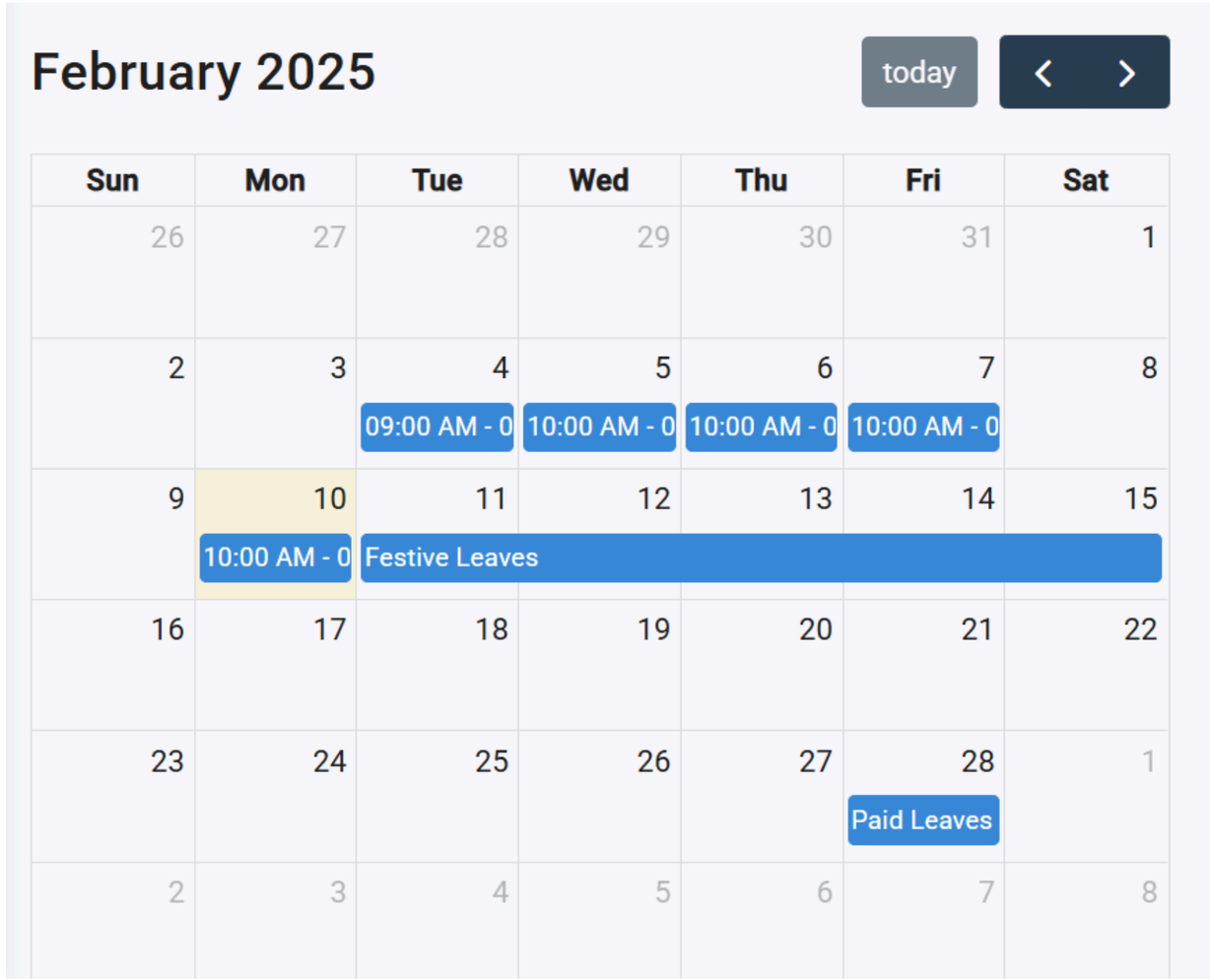
Data Visulaization







Full Calendar



Events

Daily Attendance Timing

Leave Logs Events

FullCalendar

Conclusion and Future Enhancements

Conclusion:

- Simplifies attendance tracking and enhances efficiency.
- Provides real-time reports and improves workforce management.

Future Enhancements:

- Admin Panel.
- More Enhanced UI
- Admin assigned task Display in the Calendar.
- More advanced analytics and progress tracking.