

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.

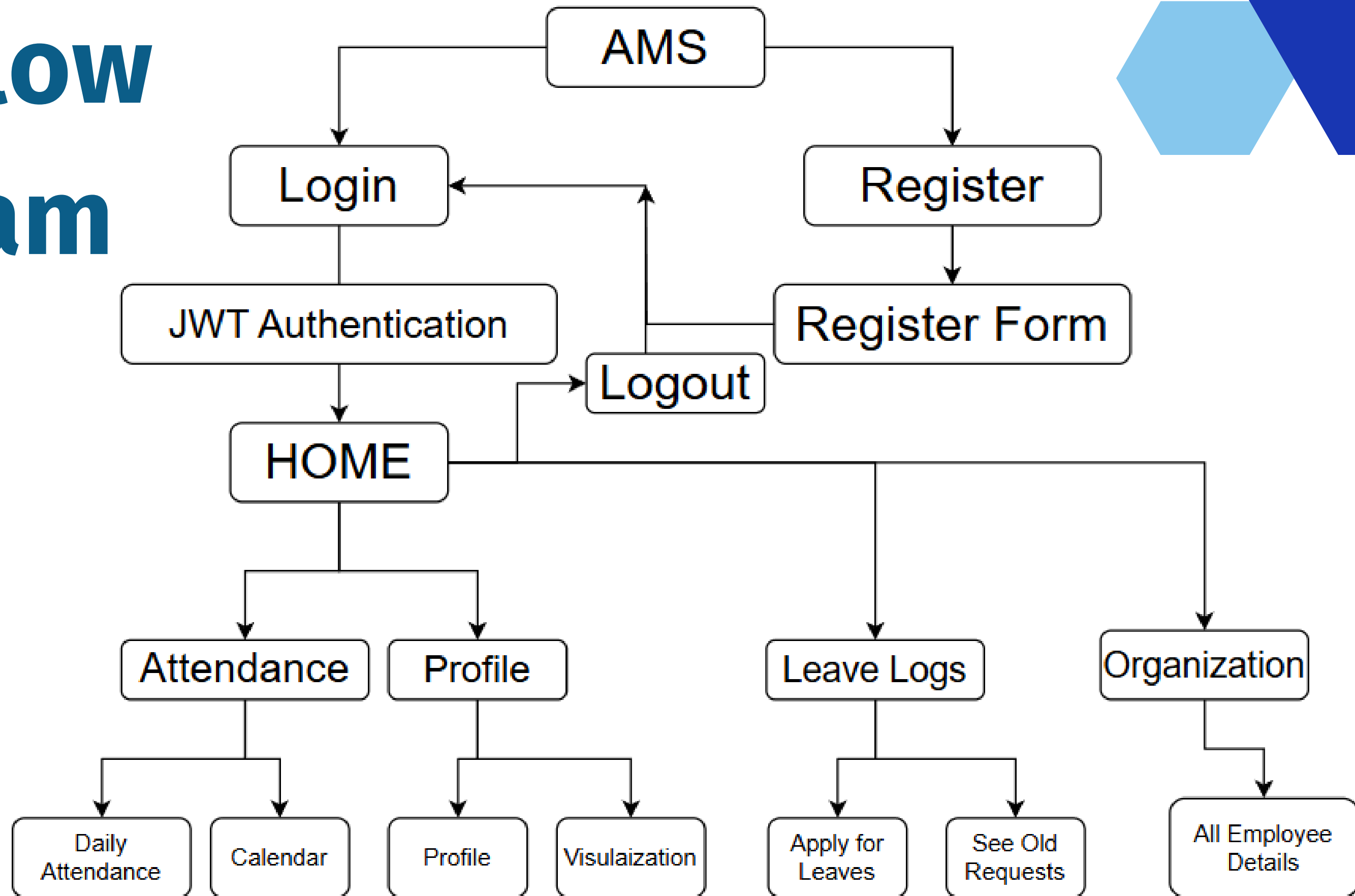
Leave Request Panel: Submit and track leave applications.

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

Data Flow diagram



Database Architecture and MySQL Tables

Employee Table

Employee Details Table

Leaves Table

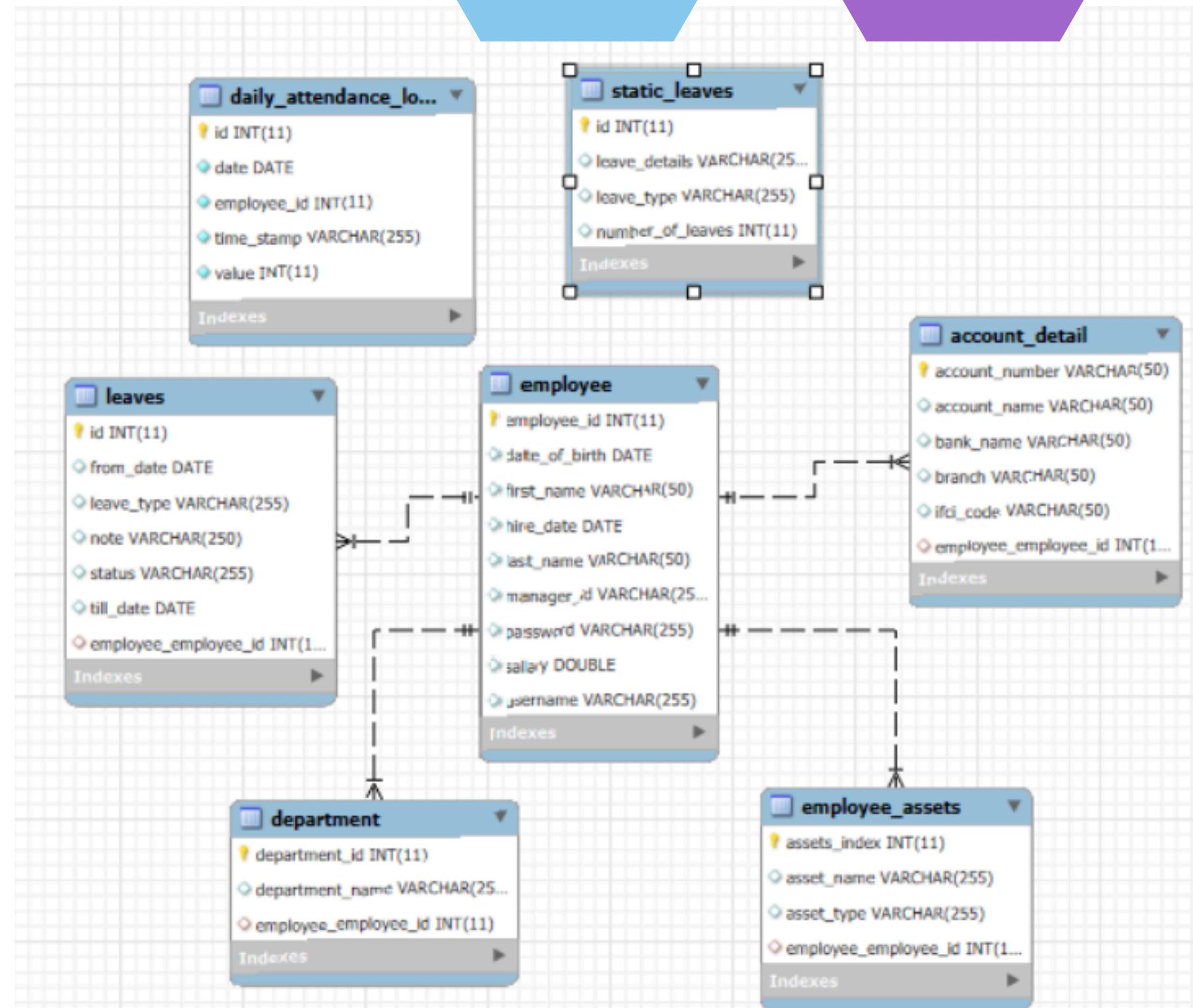
Account Details Table

Department Table

Employee Assets Table

Daily Leaves Attendance Table

Static Leaves Table

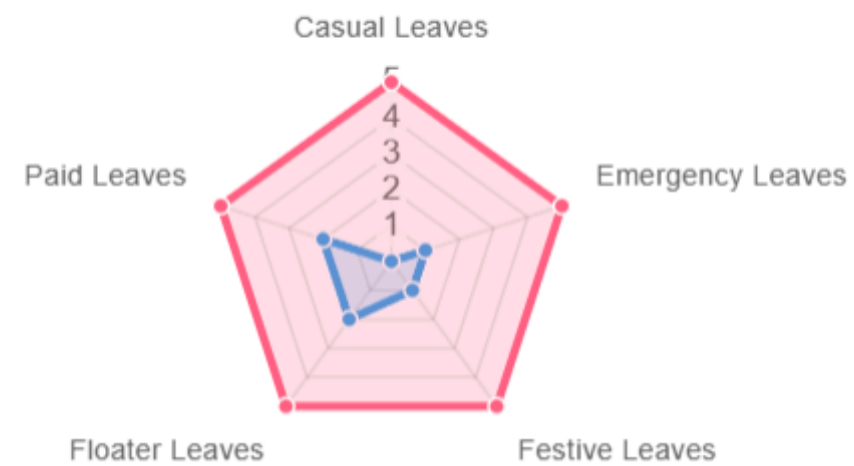


Data Visualization



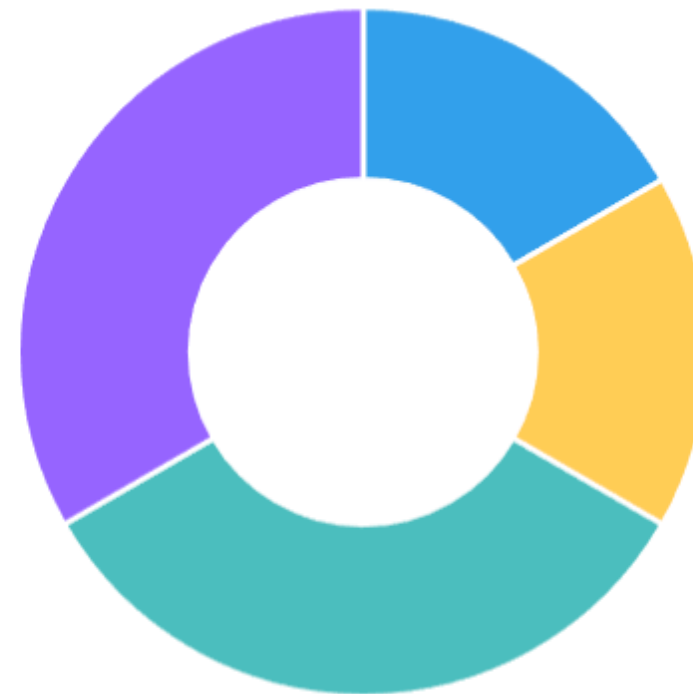
Total leaves took by you

Leaves Given By Company
Leaves Taken By Employee

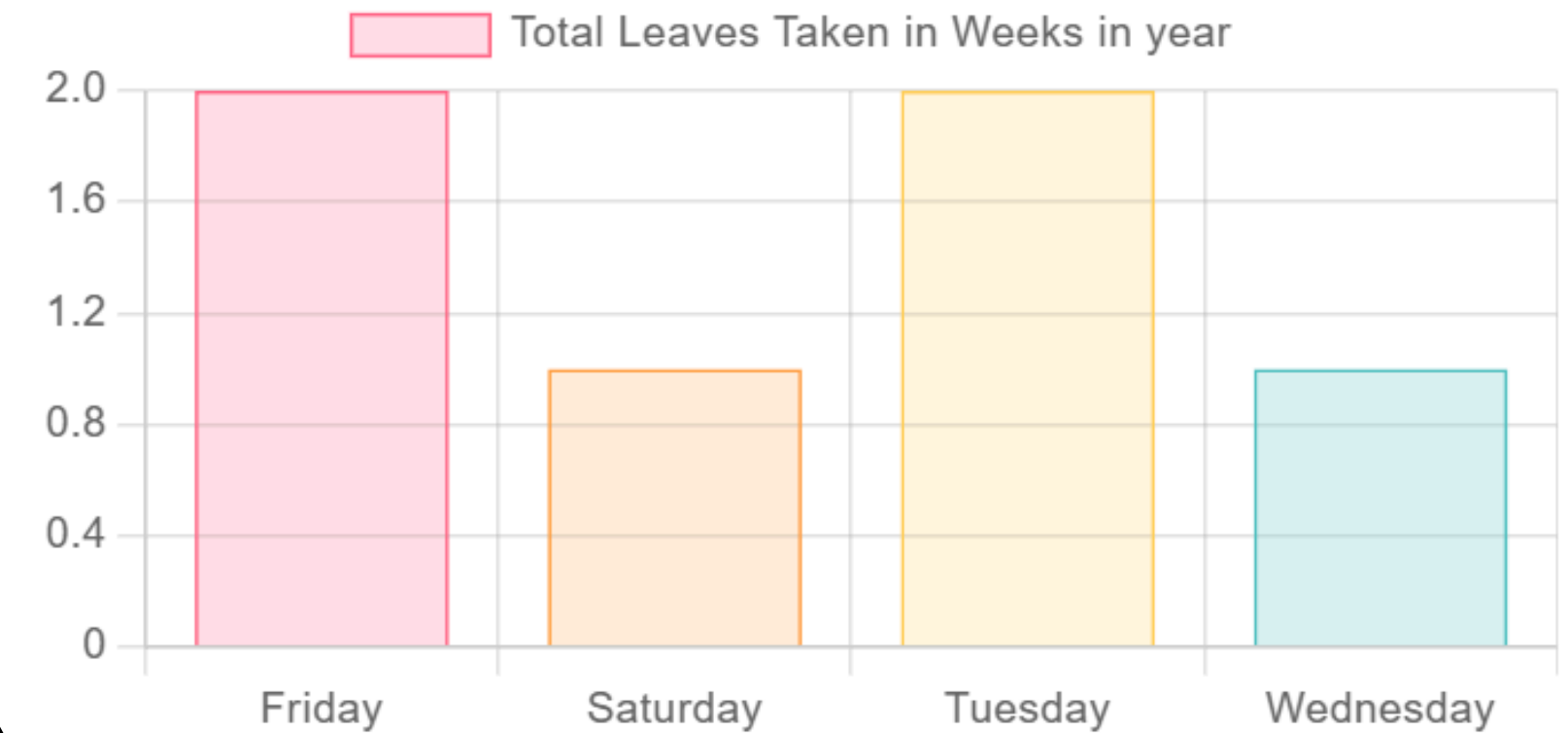


Total Leaves taken by You

Casual Leaves
Emergency Leaves
Festive Leaves
Floater Leaves
Paid Leaves



Total leaves took by you and Given By Company

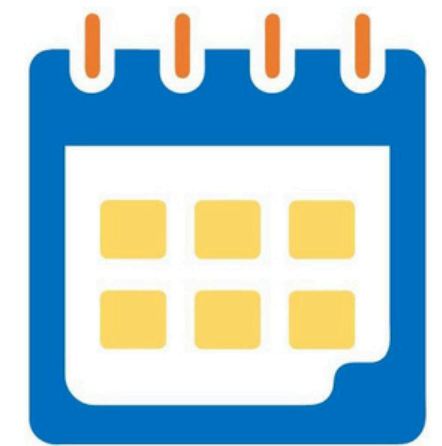


Full Calendar

February 2025							today	<	>
Sun	Mon	Tue	Wed	Thu	Fri	Sat			
26	27	28	29	30	31	1			
2	3	4	5	6	7	8			
		09:00 AM - 0	10:00 AM - 0	10:00 AM - 0	10:00 AM - 0				
9	10	11	12	13	14	15			
	10:00 AM - 0	Festive Leaves							
16	17	18	19	20	21	22			
23	24	25	26	27	28	1			
					Paid Leaves				
2	3	4	5	6	7	8			

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.

