Software Interface Specification Document - AttendCRM

**Submitted To:- Created By:-**

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**Note-** This document will address all the functionalities that need to be present in the website.

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Revision and Sign off sheet

**Document History -** To maintain a list of changes being made

|  |  |  |  |
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**1. Introduction**

**1.1 Purpose**

This document defines the functional and non-functional requirements for AttendCRM, a web-based attendance management system that allows both admins and users to manage and mark attendance records.

**1.2 Scope**

AttendCRM supports two types of users:

* **Admins** can add users, mark or edit attendance, and view attendance reports.
* **Users (employees or students)** can log in using their assigned credentials and mark their attendance once daily.
* Users can log in via **web or Flutter mobile app**.  
   The system is built with PHP and MySQL and will be deployed on a web server with REST API support for mobile.

**1.3 Definitions, Acronyms, and Abbreviations**

* **Admin**: Authorized person managing system data
* **CRM**: Customer Relationship Management
* **MySQL**: Relational database
* **SHA2**: Secure Hash Algorithm used for password hashing

**2. System Features**

**2.1 Admin Features**

* Login with secure authentication
* Add, edit, and deactivate users
* Mark attendance for users
* View, filter, and export attendance reports

**2.2 User Features**

* Secure login with assigned username and password (via web or mobile)
* Mark daily attendance with a single submission
* Optional: View own attendance history

**3. Functional Requirements**

**3.1 Admin Requirements**

* FR1: Admin login and session management
* FR2: Add/edit/deactivate users
* FR3: Mark attendance for any user
* FR4: View attendance records with filters
* FR5: Export reports to CSV (future scope)

**3.2 User Requirements**

* FR6: User login with hashed password (Web + Mobile)
* FR7: Mark own attendance once per day (Web + Mobile)
* FR8: View personal attendance history (optional, Web + Mobile)

**4. Non-Functional Requirements**

* **Usability**: Responsive UI with Bootstrap
* **Performance**: Should support up to 50 concurrent users
* **Security**: Passwords hashed using SHA2; user roles enforced
* **Scalability**: Should handle growth in user records
* **Maintainability**: Modular folder structure for easy updates
* **API Security**: REST endpoints secured for Flutter integration

**5. Database Schema**

**5.1 Tables**

**admin**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| id | INT | Primary Key |
| username | VARCHAR(50) | Unique admin ID |
| password | VARCHAR(255) | Hashed password |

**users**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| id | INT | Primary Key |
| full\_name | VARCHAR(100) | User’s full name |
| email | VARCHAR(100) | Unique email |
| username | VARCHAR(50) | Unique login ID |
| password | VARCHAR(255) | Hashed login password |
| role | ENUM | 'employee' or 'student' |
| status | ENUM | 'active', 'inactive' |

**attendance**

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| id | INT | Primary Key |
| user\_id | INT | Foreign Key (users.id) |
| attendance\_date | DATE | Date of attendance |
| status | ENUM | present/absent/late |
| remarks | VARCHAR(255) | Optional comment |
| marked\_at | TIMESTAMP | Auto timestamp |

**6. Additional Features**

* Self-attendance validation: prevent multiple entries per day
* Admin override option to mark for a user if missed
* Optional: Email notifications or summary dashboards
* Mobile support via Flutter using RESTful API

**7. Conclusion**

AttendCRM aims to simplify and digitize attendance tracking for small organizations or institutions. With both admin and user modules, and access through web and mobile, the system ensures flexibility, transparency, and accountability. Future enhancements may include analytics, export, and notifications.