**Business Requirements Document (BRD)**

**Project Title: Employee Login System Development**

**Company: Tanamera Development Pvt. Ltd.**

**Director: Mr. Vipul Kumar**

**Project Estimated Timeline: 15-20 Days**

**Working Hours: 11:00 PM - 01:00 AM**

**1. Project Overview**

Tanamera Development Pvt. Ltd. aims to develop an internal Employee Login System. The purpose is to track employee working hours through a simple, efficient, and user-friendly web-based application. This system will capture login and logout times, track the time worked, and update employee records in real-time on Google Sheets. The entire project will be managed internally by the development team, with no client involvement.

**2. Objectives**

1. To create a secure login and logout system for employees.
2. To store and manage login and logout timestamps, calculating daily working hours.
3. To integrate the system with Google Sheets for real-time data updates, including employee details like name, date of joining, and attendance.
4. To ensure that the system is user-friendly, accurate, and maintains data security.

**3. Scope of Work**

**In-Scope**

* Develop a secure login and logout system using Laravel (PHP).
* Database setup using MySQL to store employee details and timestamps.
* Integration with Google Sheets API to update attendance and other relevant employee information.
* Creation of an admin interface for the Director or HR personnel to manage employee data.
* Reporting features to generate daily and monthly reports of employee attendance.
* Implementation of authentication mechanisms for data security.

**Out-of-Scope**

* Mobile application development.
* Third-party integrations other than Google Sheets.
* Integration with payroll or HR management systems.

**4. Key Features & Requirements**

1. **User Authentication**:
   * Employee registration with unique login credentials.
   * Secure login and logout functionality.
   * Password reset options.
2. **Time Tracking**:
   * Record login and logout timestamps.
   * Calculation of total working hours per session.
   * Monthly summary of working hours for each employee.
3. **Google Sheets Integration**:
   * Sync employee data (name, joining date, attendance status) with Google Sheets.
   * Real-time updates to Google Sheets upon login/logout.
   * Maintain attendance, leave status, and presence records.
4. **Admin Interface**:
   * Dashboard for viewing and managing employee data.
   * Manual adjustments to employee records if needed.
   * Export options (CSV, Excel) for attendance reports.
5. **Reports & Notifications**:
   * Daily and monthly reports for each employee.
   * Notifications for missing entries or data inconsistencies.
   * Automated alerts for unauthorized access attempts.

**5. Stakeholders**

* **Director**: Mr. Vipul Kumar - Project Sponsor.
* **Project Team**: Developers, Project Manager, and HR personnel (for testing).
* **End Users**: Employees of Tanamera Development Pvt. Ltd.

**6. Functional Requirements**

* **User Registration**: Allow admins to register new employees with a unique email and password.
* **Login/Logout Functionality**: Accurate tracking of timestamps for logins and logouts.
* **Data Management**: Ability to view, edit, and delete employee records via the admin interface.
* **Google Sheets Sync**: Automated data update to Google Sheets upon every transaction.
* **Reporting Tools**: Generate and export reports based on employee attendance data.

**7. Non-Functional Requirements**

* **Security**: Use encrypted protocols for data transmission and secure password storage.
* **Performance**: The system should handle multiple users logging in/out simultaneously without delays.
* **Usability**: The UI should be intuitive and require minimal training for employees.
* **Reliability**: Ensure the system captures accurate timestamps and prevents data loss.
* **Scalability**: Database design should accommodate an increasing number of employees.

**8. Technology Stack**

* **Backend**: PHP (Laravel)
* **Database**: MySQL
* **Frontend**: HTML, CSS, JavaScript (with optional React.js)
* **Google Sheets Integration**: google/apiclient Laravel package
* **Version Control**: Git
* **Deployment**: Cloud Hosting (AWS/DigitalOcean) or Shared Hosting with PHP support

**9. Project Timeline & Milestones**

| **Milestone** | **Target Completion** |
| --- | --- |
| Project Kickoff & Requirement Gathering | Day 1 |
| Database & Backend Setup | Day 3-5 |
| User Interface Design | Day 6-8 |
| Google Sheets Integration | Day 9-11 |
| Authentication Implementation | Day 12-14 |
| Testing Phase | Day 15-17 |
| Final Deployment & Review | Day 18-20 |

**10. Assumptions**

* Employees have access to the internet to log in and log out.
* Data will be accurate and timely updated to Google Sheets.
* The development team will manage and control all aspects of the project.

**11. Constraints**

* System will be web-based only.
* Development limited to specified working hours (11:00 PM - 01:00 AM).
* Internet connection needed for Google Sheets integration.

**12. Risks & Mitigation**

| **Risk** | **Mitigation** |
| --- | --- |
| API limits with Google Sheets | Optimize API calls and consider caching. |
| Unauthorized access | Implement strict authentication protocols. |
| Server downtime | Use reliable hosting services with backups. |
| Data loss during integration | Implement regular backups for database. |

**13. Approvals**

* **Prepared by**: [Your Name/Project Manager]
* **Approved by**: Mr. Vipul Kumar, Director of Tanamera Development Pvt. Ltd.
* **Date**: [Date of Approval]