CEO MEMO

Current Issues Currently, our company is operating two independent systems:

1. **Human Resource Management (HR) System:**

   o This system manages information on applicants, employees, departments, jobs, shareholders, and dividends.

   o It serves as the main data source for HR-related decisions and employee management.

2. **Payroll System:**

   o This system manages salaries, bonuses, deductions, and shareholder dividends.

   o It is used to process payroll and generate financial reports related to employee income.

Both systems have been running stably for a long time and play a crucial role in company operations. However, their independence has started to reveal significant weaknesses, especially as the company continues to scale:

Major Challenges

1. **Time and Effort in Data Compilation:**

   o Whenever HR and payroll data need to be consolidated for management reports or shareholder inquiries, HR and Payroll teams must work separately and manually merge the data.

   o This not only consumes time but also slows down decision-making for managers.

2. **Inconsistent Data:**

   o When employees change positions, salaries, or departments, these updates are often reflected in the HR system but not synchronized in the Payroll system.

   o This leads to serious discrepancies in payroll processing, affecting employee trust and company credibility.

3. **Difficulty in Providing Comprehensive Reports:**

- HR system reports focus solely on employee information, while the Payroll system only covers salary and dividends.
- There is no easy way to generate integrated reports covering both HR and financial information, making strategic planning less accurate.

4. **Lack of Proactive Management:**
   - Currently, there are no intelligent alerts to remind us of important events, such as:
     - Employees approaching work anniversaries.
     - Employees accumulating excessive unused leave days.
     - Changes in employee benefits affecting payroll.

Business Requirements Given the company's growth and increasing scale, we need a robust integration solution to address these challenges. However, since both HR and Payroll systems are stable, we do not want to disrupt or replace them. Instead, we need an **integrated Dashboard** to:

1. **Integrate information from both systems:**
   - Connect data from **HUMAN_2025 (SQL Server)** and **PAYROLL (MySQL)**.
   - Map employee, payroll, department, and position data.
   - Develop APIs to retrieve and update data from both systems.

2. **Employee Management:**
   - Display employee lists from **HUMAN_2025 (SQL Server)**.
   - Search employees by ID, name, department, or position.
   - Allow adding new employees to **HUMAN_2025** and synchronizing basic data to **PAYROLL (MySQL)**.
   - Update employee information (department, position, work status) on **HUMAN_2025** and synchronize with **PAYROLL** if related to payroll.
   - Delete employees (check constraints if payroll or dividend data exists).

3. **Payroll & Attendance Management:**
   - Display employee payroll from **PAYROLL (MySQL)**, including:

- Basic salary, bonuses, deductions, and net salary.
  - View salary history by month from **PAYROLL**.
  - Display attendance data from **PAYROLL**, including workdays, absences, and leave days.
  - Update payroll details (bonuses, deductions) from **PAYROLL** when changes occur in HR.

4. **Department & Position Management:**
   - Display department lists from **HUMAN_2025**.
   - Display position lists from **HUMAN_2025**.
   - Update, add, or delete departments and positions (check constraints if employees are assigned).

5. **Reports & Analytics:**
   - HR reports from **HUMAN_2025**:
     - Total employees, distribution by department, work status.
   - Payroll reports from **PAYROLL**:
     - Total salary budget, average salary by department.
   - Dividend reports from **HUMAN_2025**:
     - Total shareholder dividends and employee shareholders.
   - Integrate visual charts for time-based data comparisons.

6. **Alerts & Notifications System:**
   - Notify employees approaching work anniversaries (1, 5, 10 years, etc.) from **HUMAN_2025**.
   - Alert when employees exceed allowed leave days from **PAYROLL**.
   - Notify large discrepancies between payroll periods from **PAYROLL**.
   - Send monthly payroll notification emails to employees from **PAYROLL**.

7. **Security & User Access Control:**
   - Authenticate login with username and password.

- o Role-based access control: **Admin, HR Manager, Payroll Manager, Employee**.

- o Employees can only view their own information and payroll.

- o **HR Managers** can view and edit employee data from **HUMAN_2025**.

- o **Payroll Managers** can view and edit salary data from **PAYROLL**.

- o **Admins** have full system access.

Key Requirements

1. **Maintain the operation of HR and Payroll systems:**

   - o No changes to database structures, processing logic, or system functionality.

2. **Develop an independent Dashboard application:**

   - o This Dashboard will connect directly to both HR and Payroll systems to fetch and process data.

3. **Ensure data synchronization when updating from the Dashboard:**

   - o All changes (add/update/delete) must be immediately reflected in both systems.

4. **Ensure data security:**

   - o Authenticate users and implement access control to ensure only authorized personnel can access or modify data.

Conclusion This integrated Dashboard project will enhance management efficiency, reduce data errors, and accelerate decision-making. I believe that with our current team capabilities, we will successfully implement the project while maintaining the stability of these two critical systems.

CEO

IMPLEMENTATION ROADMAP (10 WEEKS)

Case Study	Main Tasks	Duration
Case Study 1	Analyze & document problem statements, proposal, and project plan	Week 1
Case Study 2	Design integration model and data flows	Weeks 2-3
Case Study 3	Develop data integration APIs from Payroll and HR	Weeks 4-5
Case Study 4	Implement security and user roles	Week 6
Case Study 5	Finalize Dashboard, reports, and alerts	Weeks 7-9
Deployment	Deploy the application to the production environment	Week 10

DASHBOARD PROJECT REQUIREMENTS Integrating PAYROLL & HRM Based on the **CEO Memo**, the project's objective is to develop a **Web Application Dashboard** that integrates data from the HR and Payroll systems, addressing the outlined challenges and meeting business needs. The project is divided into **five Case Studies**, each focusing on a specific aspect of achieving full integration without altering the original database structures.