# Leave Management App

## Phase 1: Problem Understanding & Industry Analysis

The Leave Management App built using Salesforce Lightning Web Components (LWC) streamlines employee leave tracking, approvals, and reporting. By leveraging Salesforce's component-based architecture and Apex backend integration, the solution enhances transparency, reduces manual effort, and delivers an efficient employee experience.

### 1. Requirement Gathering

Requirement gathering focused on identifying the needs of employees, managers, and HR teams. Insights were drawn from manual leave processes and the challenges of tracking balances and approvals. In this project, requirement gathering included:

- Understanding how employees submit leave requests and track approval status.

- Identifying pain points in manual processes such as delays, lack of real-time balances, and miscommunication.

- Defining metrics like total leaves taken, balance leaves, and approval turnaround time.

- Mapping requirements to Salesforce features like Lightning App Builder, LWC components, and Apex data services.

### 2. Stakeholder Analysis

The stakeholders involved in this application include:

- **Employees** – Submit leave requests and track approvals.
- **Managers** – Review, approve, or reject leave requests and monitor team availability.
- **HR Teams** – Oversee leave policies, analyze leave trends, and generate reports.
- **Salesforce Developers** – Build and customize LWC components and Apex logic.
- **Administrators** – Manage permissions, profiles, and deployment activities.

This analysis ensured that each stakeholder had access to role-based features.

### 3. Business Process Mapping

The leave request workflow was mapped and implemented using LWC and Apex. Key process flows include:

- Employees raise leave requests via a custom LWC form.
- Apex backend validates balances and fetches leave history (getLeavesRequest).
- Requests are routed to managers for approval or rejection.

- Notifications and status updates are displayed dynamically in the LWC dashboard.
- HR and managers use reports to monitor leave trends and team availability.

## 4. Industry-specific Use Case Analysis

The Leave Management App addresses HR-specific use cases and enhances productivity. Use cases include:

- **Leave Request Flow** – Simple and intuitive submission process with real-time balance validation.
- **Permission Management** – Role-based access ensures only authorized users can approve or view requests.
- **UI Enhancement** – Leverages Lightning Component Library for user-friendly layouts.
- **Testing & Debugging** – Ensures reliability and quick issue resolution during development.
- **Deployment** – Source code deployment to Salesforce org for production use.

## 5. AppExchange Exploration

Although this project is custom-built with LWC, AppExchange apps were considered for extended functionality. Key explorations include:

- Evaluating HR and leave tracking apps for inspiration and benchmarking.
- Exploring integration options for payroll and attendance systems.
- Assessing existing UI templates for improving user experience.
- Reviewing security-compliant solutions for sensitive employee data.

This ensures that the Leave Management App aligns with best practices while remaining scalable.