Project Management App

Phase 1: Problem Understanding & Industry Analysis

The Project Management App built using Salesforce Lightning Web Components (LWC) streamlines project creation, timesheet tracking, approvals, and reporting. By leveraging Salesforce's component-based architecture and Apex backend integration, the solution enhances transparency, reduces manual effort, and provides real-time visibility into project progress and consultant utilization.

1. Requirement Gathering

Requirement gathering focused on identifying the needs of consultants, project managers, and finance teams. Insights were drawn from manual project management processes and challenges of timesheet logging, tracking utilization, and generating invoices. This included:.

- Understanding how consultants submit timesheets and track approvals.
- Identifying pain points such as missed deadlines, lack of real-time data, and billing delays.
- Defining metrics like allocated hours, total hours worked, remaining hours, and project completion percentage.
- Mapping requirements to Salesforce features like Schema Builder, roll-up summaries, formula fields, and reports.

2. Stakeholder Analysis

The stakeholders involved in this application include:

- **Consultants** – Submit timesheets and view assigned projects.
- **Project Managers** – Review, approve, or reject timesheets and monitor project status.
- **Finance Teams** – Generate utilization reports and prepare client invoices.
- **Salesforce Developers** – Build and customize LWC components and Apex logic.
- **Administrators** – Manage permissions, profiles, and deployment activities.

This ensures each stakeholder has role-based access and visibility.

3. Business Process Mapping

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

- Consultants submit timesheets through a custom LWC form.
- Apex backend validates entries, prevents overlaps, and calculates total hours.

- Requests are routed to managers for approval.
- Notifications and status updates are displayed dynamically in dashboards.
- Managers and finance teams use reports to track project utilization and invoicing.

4. Industry-specific Use Case Analysis

The Project Management App addresses professional services and consulting use cases. Examples include:

- Timesheet Flow – Simple and intuitive logging with validations.
- Permission Management – Role-based access ensures managers only see their team data.
- Real-time Dashboards – Provides PMs with project progress and utilization trends.
- Deployment – Ready to scale across multiple orgs using SFDX.

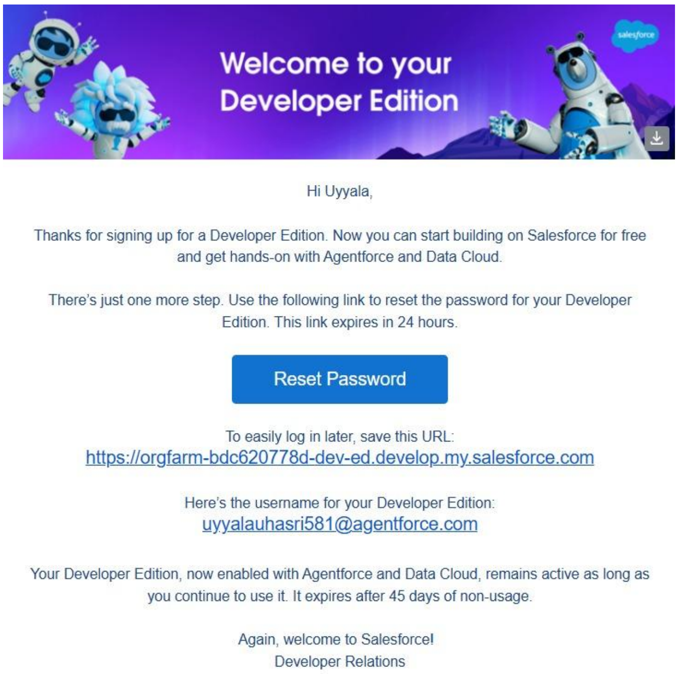
5. AppExchange Exploration

AppExchange solutions were reviewed for inspiration and benchmarking:

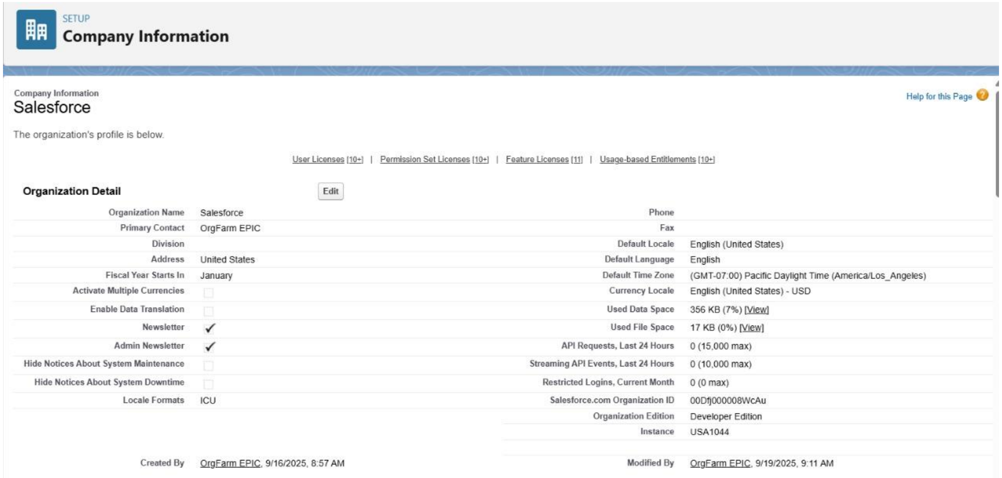
- Evaluated resource and project management apps.
- Reviewed templates for invoicing and utilization dashboards.
- Checked compliance-ready apps for data security best practices

Phase 2: Org Setup & Configuration

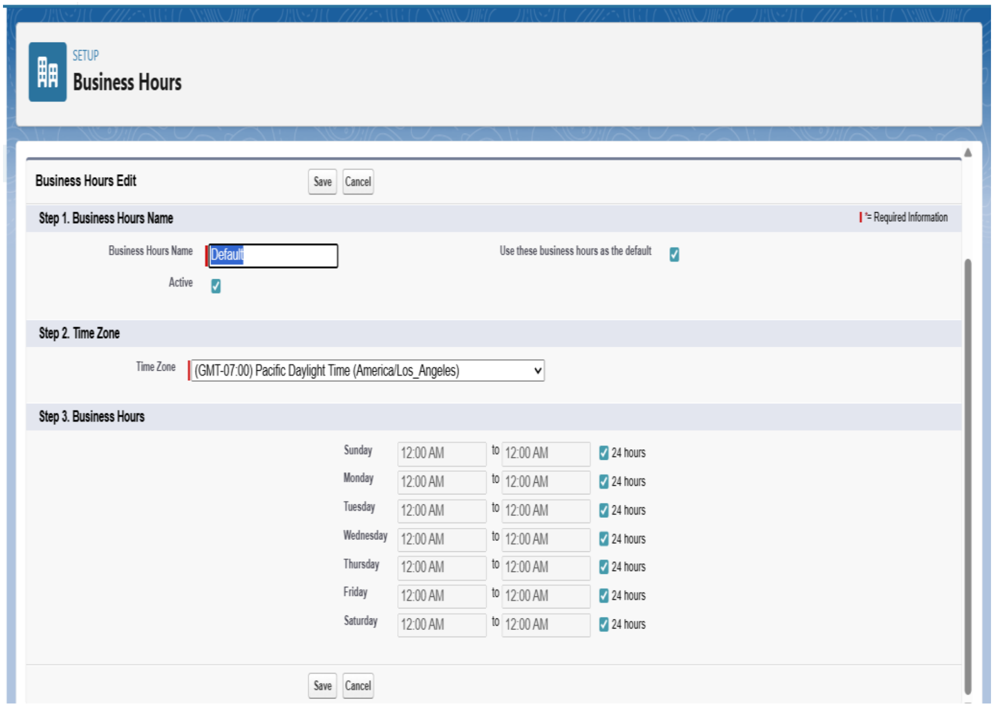
- **Salesforce Editions:** Developer Org selected for development and testing, providing full access to standard/custom objects.



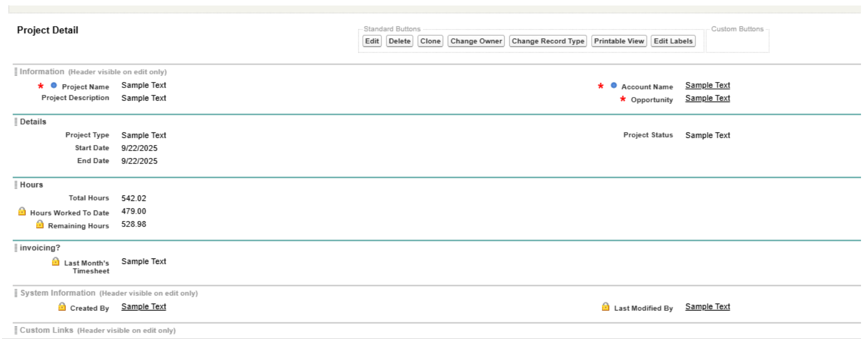
- **Company Profile Setup:** Configured company info, fiscal year, business hours, and holidays to align with project schedules.



- **Business Hours & Holidays:** Defined to calculate project deadlines accurately.



- **User Setup & Licenses:** Created Consultant, Project Manager, and Finance users with appropriate permissions.
- **Profiles:** Define baseline permissions for each role.
- **Roles:** Define hierarchy so PMs can access consultant data.
- **Permission Sets:** Grant additional access (edit allocated hours, view all projects).



- **Organization-Wide Defaults (OWD):** Set Projects and Timesheets to Private for confidentiality.
- **Sharing Rules:** Grant managers visibility of their team's projects.
- **Login Access Policies:** Restrict login by IP and session settings.
- **Deployment Basics:** Configure SFDX CLI and version control.

Account Name	Account_Name__c	Master-Detail(Account)
Created By	CreatedById	Lookup(User)
End Date	End_Date__c	Date
Hours Worked To Date	Hours_Worked_To_Date__c	Roll-Up Summary (SUM Timesheet)
Last Modified By	LastModifiedById	Lookup(User)
Last Month's Timesheet	Last_Month_s_Timesheet__c	Formula (Text)
Opportunity	Opportunity__c	Lookup(Opportunity)
Project Description	Project_Description__c	Text(255)
Project Name	Name	Text(80)
Project Status	Project_Status__c	Picklist
Project Type	Project_Type__c	Picklist
Remaining Hours	Remaining_Hours__c	Formula (Number)
Start Date	Start_Date__c	Date
Total Hours	Total_Hours__c	Number(16, 2)