

Membership & Subscription Management System

Salesforce Capstone Project - Final Report

Phase 1: Problem Understanding & Industry Analysis

Goal: Understand what we are building and why. -

Problem: Organizations often struggle to manage memberships, subscriptions, and renewals manually -

Solution: A Salesforce-based system to automate membership management, track subscriptions, send and generate invoices. - Industry Need: Subscription-based models are growing rapidly, and businesses need CRM solutions to handle payments, and customer retention. -

Stakeholders: Admins, Managers, Agents, Customers.

Phase 2: Requirement Gathering & Object Design

Goal: Define system requirements and design

Salesforce objects. - Custom Objects: * Member__c

(Name, Email, Phone, Address). * Subscription__c

(Plan, Start Date, End Date, Status, Linked Member).

* Invoice__c (Invoice No, Amount, Payment Status,

Linked Subscription). - Business Requirements: *

Manage members and their subscription lifecycle. *

Automate renewals and expiry. * Generate invoices

and reports for managers.

Phase 3: Data Modeling & Relationships

Goal: Build the data structure. - Relationships: *
Member (1) → Many Subscriptions. *
Subscription (1) → Many Invoices. - Tools Used: *
Schema Builder for visualization. * Lookup
Relationships for linking objects. - Layouts: *
Member page shows related subscriptions. *
Subscription page shows invoices. * Compact
Layouts optimized for mobile.

Phase 4: Process Automation (Flows)

Goal: Automate repetitive tasks. - Flows Created:
* Auto-set End Date (based on Plan: 30, 90, 365 days). * Renewal Reminder Email (7 days before expiry). * Auto Expire Subscription (when End Date < Today). - Benefits: * Saves manual effort. * Improves customer experience. * Ensures accuracy in subscription tracking.

Phase 5: Apex Programming

Goal: Add advanced logic with Apex. - Trigger on Subscription__c: * Automatically calculates End Date when Start Date and Plan are set. - Exception Handling: * Prevents incorrect data entry. - Test Classes: * Ensure trigger coverage for deployment. - Future Enhancements: * Batch Apex to mark overdue subscriptions. * Scheduled Apex to send daily reports.

Phase 6: User Interface Development

Goal: Make the application user-friendly. - Lightning App: "Membership Manager". - Tabs: Members, Subscriptions, Invoices. - Record Pages: Show related records and important details. - Home Page: Displays Dashboard with membership insights. - Utility Bar: Quick "New Subscription" button for agents.

Phase 7: Integration & External Access

Goal: Connect Salesforce with external systems. - Named Credentials for storing API keys securely. - REST API callouts (future enhancement) for payment verification. - Platform Events to notify if subscription is cancelled externally. - External Services to connect with billing systems.

Phase 8: Data Management & Deployment

Goal: Manage and move data. - Data Import Wizard: Used for importing demo members. - Data Loader: Bulk import subscriptions and invoices. - Duplicate Rules: Prevent duplicate members. - Backup: Weekly data export enabled. - Deployment: * Change Sets for moving changes to production. * SFDX/ANT for developer-friendly deployment.

Phase 9: Reporting, Dashboards & Security

Goal: Provide insights and secure data. - Reports:
* Active Members Report. * Expiring Subscriptions Report. * Revenue by Month Report. -
Dashboards: * Membership Overview Dashboard.
* Manager's Revenue Dashboard. - Security: *
Sharing settings: Subscriptions private, Members public. * Field Level Security: Hide sensitive fields.
* Login IP Ranges and session timeouts for agents. * Audit Trail enabled.

Phase 10: Final Deployment & Conclusion

Goal: Wrap up the project and deploy. - Deployment: *
Sandbox to Production via Change Sets. * Test Classes passed successfully. * Reports & Dashboards validated.
Conclusion: The Membership & Subscription Management System is a complete Salesforce CRM solution that manages subscriptions, invoices, and automations. It automates end dates, renewal reminders, and expirations with security and providing reports for decision making. Future Enhancements: - Member self-service portal. - Payment gateway integration. - Mobile app integration. - AI-powered renewal predictions.