

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, and generate invoices.
- **Industry Need:** Subscription-based models are growing rapidly, and businesses need CRM solutions for 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, Lookup Relationships
- **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 for overdue subscriptions, Scheduled Apex for 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:** Import demo members.
- **Data Loader:** Bulk import subscriptions and invoices.
- **Duplicate Rules:** Prevent duplicate members.
- **Backup:** Weekly data export enabled.
- **Deployment:** Change Sets for 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, Login IP Ranges, session timeouts, 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 while ensuring security and providing reports for decision making.
- **Future Enhancements:** Member self-service portal, Payment gateway integration, Mobile app integration, AI-powered renewal predictions.