Salesforce Project Report

Project Title: Airline Management System – Flight & Booking Hub

Project Overview

- Industry: Travel & Aviation
- Project Type: B2C Salesforce CRM Implementation
- Target Users: Airline Staff, Administrators, Passengers
- Problem Statement: Airlines face challenges with manual booking, overbooking, and poor passenger communication. A Salesforce CRM solution is needed to streamline flight management, automate bookings, and provide real-time dashboards.
- Use Cases: Flight Scheduling, Passenger Management, Booking System, Automation, Reporting & Analytics.

Phase 1: Requirement Analysis & Industry Study

- Requirement gathering with airline staff/admin.
- Stakeholder analysis: Staff (manage bookings), Admin (monitor reports), Passengers (receive updates).
- Business process mapping: Manual booking → Automated Salesforce workflow.
- Explore AppExchange add-ons for SMS/email notifications.

Phase 2: Org Setup & Configuration

- Setup in Salesforce Enterprise/Developer Org.
- Company profile: Airline organization details.
- Business hours: Define operational times.
- User setup & security: Profiles (Admin, Airline Staff, Support), Roles (Staff → Manager → Admin), OWD → Private for Passenger__c.

Phase 3: Data Modeling & Schema Design

- Custom Objects: Airline__c, Flight__c, Passenger__c, Booking__c.
- Relationships: Flight → Airline (Lookup), Booking → Flight (Lookup), Booking → Passenger (Lookup).
- Record Types: Domestic vs International Flights.

Phase 4: Automation (Flows & Validation Rules)

- Validation: Prevent overbooking when Seats = 0.
- Flows: Auto-update seat availability after booking, auto-send email confirmation to passenger.
- Approval process (optional): Booking cancellation approval.

Phase 5: Apex Programming (Optional Enhancement)

- Apex Trigger: Block booking if no seats left.
- Scheduled Apex: Send flight reminders 24 hrs before departure.
- Batch Apex: Recalculate occupancy rates daily.

Phase 6: User Interface Development

- Lightning App: 'Airline Management System' with tabs.
- Page Layouts: Show related bookings on Flight record.
- Quick Actions: 'Book Flight' button.
- LWC (Optional): Passenger-facing booking form.

Phase 7: Integration & External Access

- Web-to-Lead: Capture passenger inquiries from airline website.
- Named Credentials: Connect with external payment gateway (demo).
- API Callouts: Sync with external flight info system (optional).

Phase 8: Data Management & Deployment

- Data Loader: Import Airlines, Flights, Passenger data.
- Duplicate rules: Prevent duplicate passengers by Passport + Email.
- Deployment: Dev Sandbox → UAT → Production using SFDX.

Phase 9: Reporting, Dashboards & Security Review

- Reports: Flight occupancy, bookings per airline, cancellations.
- Dashboards: Admin dashboard (revenue, occupancy), Flight dashboard (cancellations).
- Security: Field-level security for passenger passport/ID, Audit trail for admin actions, Login IP restrictions for Admin users.

Phase 10: Final Demo & Documentation

- Live demo: Create Passenger → Book Flight → Auto Email → Dashboard Update.
- Documentation: Admin guide + user guide.
- Portfolio: Upload screenshots, reports, demo video to GitHub/LinkedIn.
- Future Scope: Payment integration, mobile app for passengers, AI for predictive flight delays.