

Airlines Management System (AMS)

Problem Statement:

Airlines often face challenges in managing flight schedules, passenger bookings, ticketing, cancellations, and customer queries due to manual processes. Passengers want a simple way to search flights, book tickets, check flight status, and report issues. An Airlines Management System can automate these tasks, send timely alerts, and provide better tracking for both passengers and airline staff. This will improve customer satisfaction and make airline operations more efficient.

Phase 1: Problem Understanding & Industry Analysis

Requirement Gathering

Stakeholders:

- Passengers
- Booking agents / airline staff
- Technicians / ground staff (optional)
- Airline managers / admins

Passenger Needs:

- Search and compare flights easily
- Book or cancel tickets online
- Track bookings and flight schedules
- Report issues or complaints

Airline Staff Needs:

- Manage flight schedules
 - Handle bookings and cancellations
 - Assign tasks (seat allocation, check-in support)
 - Monitor revenue, load factor, and passenger satisfaction
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Stakeholder Analysis

- **Passengers:** End users who want easy digital access to flights, tickets, and updates.
- **Booking Agents / Staff:** Handle bookings, cancellations, and passenger requests.

- **Ground Staff / Technicians:** Ensure smooth boarding, check-in, and handle operational issues.
 - **Managers / Admins:** Monitor KPIs, revenue, flight occupancy, and passenger satisfaction dashboards.
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Business Process Mapping

1. Passenger searches flights on portal.
 2. Booking is automatically created in the system.
 3. Seat allocation and ticket generation performed automatically.
 4. Renewal/reminder alerts for frequent flyers or loyalty program members.
 5. Complaints or feedback tracked and assigned to appropriate staff.
 6. Managers view performance, revenue, and operational KPIs on dashboards.
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Use Cases

- **Flight Management:** Admins can add, edit, or cancel flights; passengers can view available flights.
 - **Ticket Booking:** Passengers book tickets online; system handles seat allocation, ticket generation, and payment tracking.
 - **Cancellations & Refunds:** Passengers can cancel bookings; staff can approve refunds; system updates seat availability.
 - **Complaint Handling:** Passengers report flight-related issues; cases created, tracked, and resolved by staff.
 - **Performance Dashboards:** Managers track passenger numbers, bookings, revenue, cancellations, and staff performance.
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AppExchange / Tool Exploration (AMS Domain)

- **Payment Gateway Integration:** Automates ticket payments, recurring subscriptions (e.g., loyalty programs), and invoicing.
- **Route/Flight Mapping Tools:** Helps optimize flight schedules, seat occupancy, and operational planning.
- **Notification Systems:** SMS/email notifications for booking confirmations, flight reminders, cancellations, and promotions.

