

Flight Booking Management System

Introduction

The Flight Booking Management System is a relational database project developed using MySQL. It allows management of flight schedules, customer information, bookings, and seat availability. This system ensures proper coordination between flights and customers while tracking real-time booking status.

Abstract

This project provides a backend database structure for handling flight booking operations. It includes tables for Flights, Customers, Bookings, and Seats. Functionality includes booking management, seat status updates through triggers, customer booking lookup, and flight searches. Views and queries are used to generate summaries and analytics, such as total bookings per flight and booking status breakdowns.

Tools Used

- Database: MySQL
- Editor: MySQL Workbench / SQLiteStudio
- Languages: SQL
- Reporting: Export queries via views or CSV

Steps Involved in Building the Project

1. Schema Design: Created tables - Flights, Customers, Bookings, and Seats.
2. Data Insertion: Inserted flight schedules, customer data, and booking records.
3. Triggers: Added triggers to update seat status on booking and cancellation.
4. Queries: Built flight search, booking reports, and available seat calculations.
5. Views: Created BookingSummary view for consolidated reporting.
6. Reporting: Extracted booking summaries, seat availability, and status analytics.

Conclusion

The Flight Booking Management System offers a reliable backend for handling airline operations. It effectively manages customer reservations, seat tracking, and booking records using SQL techniques. It is scalable and adaptable for real-world applications.

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