

Airport Management System

PROJECT TITLE

Airport Operations Management Database System

PROJECT OVERVIEW

Introduction

The Airport Management System is a comprehensive database application designed to manage the daily operations of an airport. This system handles all critical information including flights, passengers, crew members, aircraft, and airport personnel through a well-structured relational database.

Objective

To create an efficient database system that stores, organizes, and retrieves airport operational data while providing different access levels for various users including passengers, crew members, Air Traffic Controllers (ATC), and management staff.

Purpose

- Store comprehensive information about flights, passengers, crew staff, and airport personnel
- Organize flight data in a logical manner for quick retrieval and reporting
- Provide role-based access to information through simple queries and views
- Support daily airport operations with real-time data management

Key Features

The system provides 17 core functionalities:

1. View upcoming flights
2. Display passenger details for specific flights
3. Show crew member assignments
4. Search employee statistics
5. Employee management (add/remove)
6. Ticket booking and cancellation
7. Flight cancellation management
8. Flight duration analysis
9. Occupancy vs pricing analysis

10. Find cheapest flights on routes
11. Calculate average ticket rates
12. New ticket booking
13. Add new flights
14. Employee registration
15. Update flight status
16. Salary management
17. User logout functionality

And many more other features.

Applications

- **Crew Members:** Check upcoming flight schedules and assignments
- **ATC Specialists:** Monitor flight schedules for takeoff/landing clearances
- **Passengers:** View current flight status and updated departure times
- **Airport Management:** Analyze operational load and resource utilization
- **Emergency Services:** Access employee and passenger details during incidents