Project Report

Airline Reservation System

Abstract

This project is about creating a simple **Airline Reservation System** using SQL. The system manages **flights, customers, bookings, and seats**. It allows users to **search flights, check available seats, make bookings, and cancel bookings**. The project also includes **triggers** to automatically update seat status and a **view** to show available seats.

Introduction

Airline Reservation Systems are used by airlines to manage flight schedules, customer details, seat bookings, and cancellations.
This project demonstrates a **database-driven system** using MySQL. It provides an easy way to **track flights, customers, and bookings** in a structured manner.

Tools Used

- **MySQL Workbench** – To create database, tables, queries, triggers, and views

- **SQL** – For writing queries and managing data

Steps Involved

1. **Design Database Schema**

   o Created tables: Flights, Customers, Bookings, Seats

   o Defined primary and foreign keys

2. **Insert Sample Data**

   o Added flights, customers, and seats

3. **Write Queries**

   o Search flights by source/destination

   o Check available seats

   o Make bookings

   o Cancel bookings

   o Generate booking summary report

4. **Create Views**

   o Created AvailableSeats view to show all available seats

5. **Add Triggers**

   o Trigger to automatically mark seats as BOOKED when booking is made

   o Trigger to automatically mark seats as AVAILABLE when booking is cancelled

Conclusion

The project successfully demonstrates a **complete Airline Reservation System** using MySQL.
It covers **flight management, customer management, seat management, bookings, cancellations, triggers, and views**.
The system is simple, easy to use, and can be **extended** for more features like dynamic seat selection, multiple flights, and advanced reports.