

Project Proposal

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1. Introduction

The Airline Reservation System is designed to simulate the booking and cancellation of flight seats in two distinct classes: Economy and Business. The project will allow passengers to check available seats, make reservations, and cancel bookings. This system will streamline the process of managing seat reservations and provide an easy-to-use interface for users.

2. Objectives

To design and implement a seat booking and cancellation system in C. To manage two categories of seats: Economy Class and Business Class. To provide a menu-driven interface for ease of use. To allow visualization of booked and available seats in real time. To extend the system for storing passenger details and persistent data in files.

3. Scope of the Project

The system will initially handle booking and cancellation for a single flight with limited seats in Economy and Business class. It can later be extended to support multiple flights, passenger details, ticket pricing, and file-based storage for data persistence. The system will primarily focus on providing a basic yet functional airline reservation simulation in the C programming language.

4. Methodology

The project will be developed using the C language. It will use arrays and structures to manage seats and passenger information. A menu-driven approach will be implemented to allow users to interact with the system. The system will also include error handling for invalid seat selections and double bookings. File handling may be incorporated in later stages to enable saving and loading reservation data.

5. Expected Outcomes

A functional airline reservation system capable of booking and cancelling seats in two classes. Visualization of available and booked seats. A foundation for extending the system with additional features such as passenger records and ticket pricing. Practical

application of C programming concepts including arrays, functions, and file handling.

6. Conclusion

This project will serve as a valuable learning experience in implementing real-world systems using the C programming language. By simulating an airline reservation system, it demonstrates the practical use of data structures, menu-driven programming, and user interaction in solving real-life problems.