Flight Reservation System (C++)

1. Project Overview

This project is a console-based **Flight Reservation System** developed in C++. It allows users to book, cancel, and manage airline tickets for different destinations globally. The system supports real-time seat selection, food preferences, and reservation modifications.

2. Key Features

- **Flight Ticket Booking**: Collects passenger details and allows selection of available seats.
- **Seat Availability & Selection**: Displays a seating layout and prevents double booking.
- **Cancellation & Refund**: Users can cancel bookings; seat availability is updated accordingly.
- **Change Reservation**: Allows modification of selected seat post-booking.
- **Food Preferences**: Offers meal choices (Veg, Non-Veg, No Food) during booking.
- **Passenger & Booking Details**: Displays individual or all passenger records on request.

3. Technical Highlights

- **Object-Oriented Programming**: Implemented via a Flight class using encapsulation and dynamic memory.
- **Linked List**: Used for storing and managing passenger records dynamically.
- **Array for Seat Tracking**: seats [100] array manages booked and available seats efficiently.
- **User-Friendly Console UI**: Menu-driven interface with options for all booking-related operations.
- **Input Validation**: Ensures correct seat numbers and food choices are entered.

4. Tools & Technologies

- **Language**: C++
- **IDE/Compiler**: Any standard C++ compiler (e.g., Code:Blocks, g++, VS Code)

5. Limitations

- No support for multiple flights or real-time data persistence.
- Seat availability and passenger data are reset when the program restarts.

GitHub Project Link: https://github.com/bokamgangothri/FlightReservationSystem