Flight Occupancy Report for Web Application

Objective:

The Flight Occupancy Report provides detailed insights into the occupancy status of flights in a web application developed using PHP, Bootstrap, and MySQL as the database. It aims to analyze the flight occupancy trends, identify the top occupied flights, and provide user statistics for the web application. Additionally, the report highlights the key features and design aspects of the web application, including user and admin interfaces, login functionality, profile management, flight booking and cancellation, admin capabilities, and the overall website design.

Introduction:

The flight reservation web application, developed using PHP, Bootstrap, and MySQL, offers a user-friendly platform for managing flight bookings and provides essential functionalities for both users and administrators. The web application's primary objective is to streamline the flight reservation process and enhance the user experience.

1- User Interface and Functionality:

- **User Interface:**
  - The web application includes a visually appealing and intuitive user interface designed with neomorphism, providing a modern and eye-comfortable experience for users.
- **User Login:**
  - Users can create an account and log in to the web application, ensuring a personalized experience and access to their profile and booking information.

- **Profile Management:**
  - Users have the ability to edit their profile details, including their name, email, phone number, and address, offering flexibility and control over their personal information.
- **Flight Booking:**
  - Users can search for available flights based on criteria such as date, source, destination, and the required number of seats. They can select a flight and proceed with the booking process.
- **Flight Cancellation:**
  - Users have the option to cancel their booked flights, providing flexibility and convenience for managing their travel plans.

2- Admin Capabilities:

- **Admin Interface:**
  - The web application includes a separate interface for administrators with additional functionalities and access to system management features.
- **Aircraft Management:**
  - Administrators can add new aircraft to the database, providing details such as maximum weight, number of seats, manufacture date, name, and model. This ensures an up-to-date inventory of available aircraft.
- **Flight Management:**
  - Admins can add new flights for specific aircraft, including departure location, arrival location, departure time, arrival time, price, and airline information. They can also delete flights when necessary, allowing for efficient management of the flight schedules.

3-Welcome Page:

- **Welcome Page:**
  - The web application features a captivating welcome page with a perfect carousel showcasing an impressive selection of modern and epic aircraft, leaving a lasting impression on visitors.

4- Design Approach:

The UI design of the web application adopts the neomorphism trend, combining soft shadows, subtle gradients, and rounded elements to create a visually pleasing and modern design.

5-Database Management:

- **Database Structure:**
  - The web application utilizes a MySQL database to store and manage essential data related to **aircraft, flights, seats, users, reservations, and payments.**
- **Tables and Relationships:**
  - The database schema includes tables such as aircraft, flight, seat, user, reservation, and payment, with appropriate foreign key relationships to maintain data integrity and facilitate data retrieval and updates.

Conclusion:

The Flight Occupancy Report provides comprehensive insights into the occupancy status of flights within the web application. By analyzing flight occupancy trends, identifying the top occupied flights, and providing user statistics, the report offers valuable information for optimizing seat occupancy and enhancing the overall user experience. Additionally, the report highlights key features of the web application, including user and admin interfaces, login functionality, profile management, flight booking and cancellation capabilities, admin capabilities for aircraft and flight management, and the visually impressive welcome page design using neomorphism.