AIRLINE RESERVATION SYSTEM (For Burmese-Wings)

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Abstract. Airline reservation systems are software solutions that streamline the process of booking and managing airline tickets. Airline Reservation System contains the details about flight schedules and its fare tariffs, passenger reservations and ticket records. An airline's inventory contains all flights with their available seats. The inventory of an airline service is generally divided into two categories of classes (e.g. business and economy class), along with prices and booking conditions.

Keyword: airplane, flight, booking, travel-class, passenger, payment

INTRODUCTION

In today's world, online flight booking is emerging as a very reliable, quick and effective way to give your businesses a competitive edge. Airline Reservation System is a computerized system. Airline Reservation System Project will help the user to book their flight tickets without visiting booking counter or to any other booking vendors, thus saving their money and time. Airline Reservation System Project will be accessible by the user from any location through 24/7. Airline Reservation System Project will be user friendly and providing all the information on single screen just by single click. Airline reservation system allows passengers to find flights as per their convenience and book them at their own discretion. This reduces the dependence on airlines to get the ticket booked. This software provides passengers with all the required information about flights along with the fares for economic and business class.

PROBLEM

The Airline Reservation System addresses the significant challenges travelers face with traditional flight booking methods, such as long wait times, limited access to information, and a lack of flexibility. Many travelers struggle to find reliable, centralized information about flight availability, pricing, and schedule changes, leading to frustration and potential booking errors. By providing a user-friendly platform for real-time access to flight details, the system empowers users to search, compare, and book flights conveniently from anywhere, anytime. Additionally, with an efficient admin interface for airlines to manage flight data, the system ensures that passengers receive the most up-to-date information, ultimately enhancing the overall travel experience.

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APPROACH

This system consists of two roles. There are Passenger and Administrator. Passengers can easily look at the home page the information and make a flight search for the place they want to go and the date they want to go. There, they can choose the airline that is convenient for them, when they want to make a booking, he must have a user account. First, passengers need to login into the account if they want to apply for flight booking. If the passenger has never used this system, they need to sign-up first to apply for flight booking. If the account creation is successful, the user can log in by entering the user's name and password to apply for flight booking. After that, the passenger can fill in the complete information of the person who wants to apply. If the login failed, the user must check the entered information. After having a user account, they can add details to the booking form to make a flight booking. After the passenger has paid for the flight ticket, you will get a ticket. Then the passenger can easily view and read other services, detailed vlogs of some famous places to visit in Myanmar, and the contact us page. After that the passenger can logout and the system will stop working.

For admin, the system provides useful features to manage flight schedules, update booking details, seat management and generate reports on passenger trends, booking and revenue. Admins can oversee all bookings, make changes as needed, and keep everything running smoothly. The system stores all the important information about flights, customers, and payments in a safe database. The website is designed to be easy to use for both customers and airline staff. It also helps airlines work better by automating tasks like scheduling flights and checking in passengers.

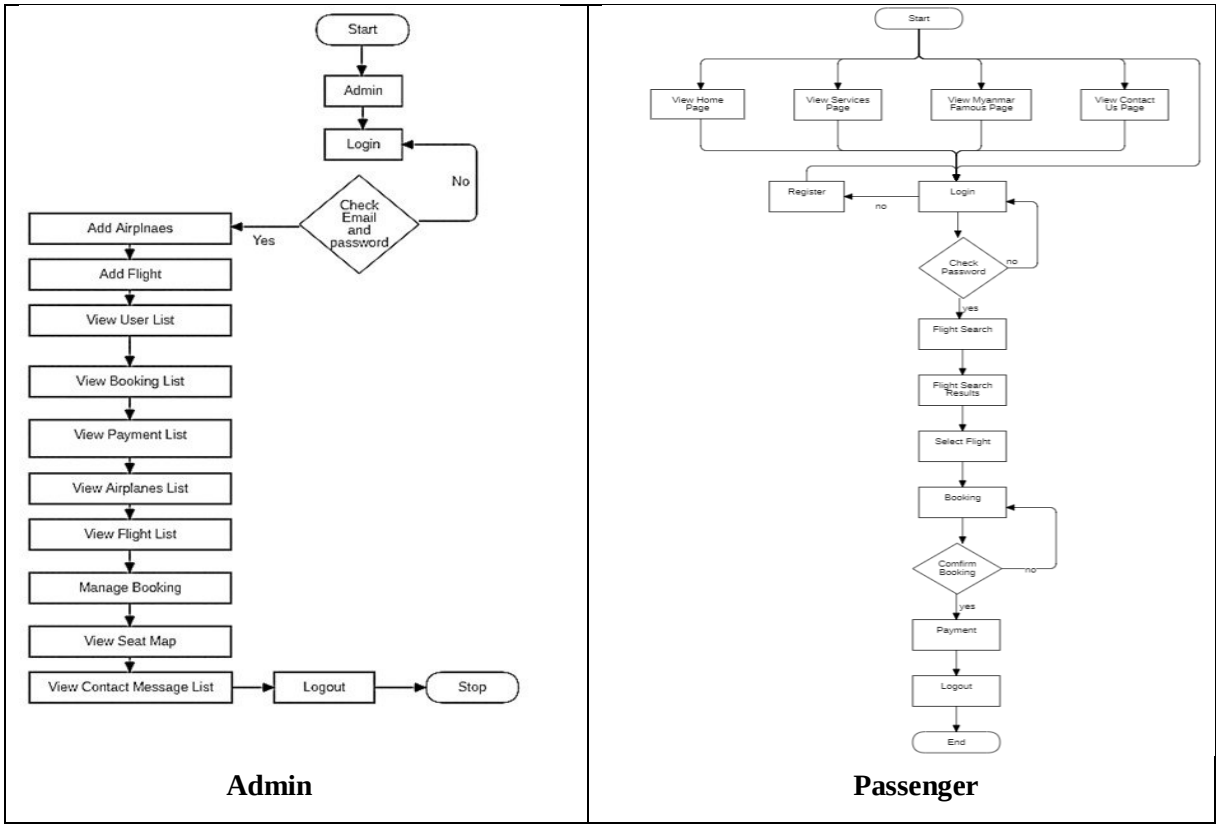

Figure 1: System Flow Diagram

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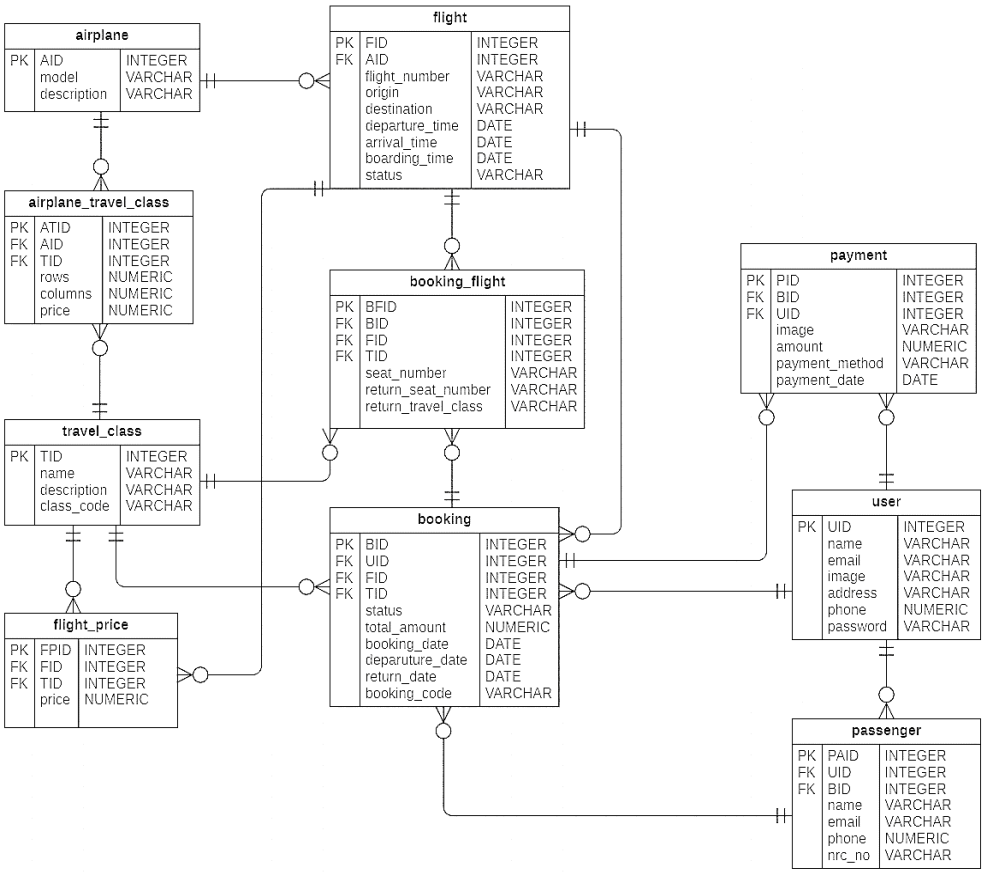

Figure 2: Database Design

An Entity Relationship Diagram uses data modeling techniques that can help define business processes and serve as the foundation for a relational database. An Entity Relationship Diagram attribute can be denoted as a primary key, which identifies a unique attribute, or a foreign key, which can be assigned to multiple attributes [1]. In database, an ER diagram for an airline reservation system shows how the databases are connected. It also shows how all the databases are logically related to each other. We can also create an ER diagram by drawing the figure of a different part of the airline reservation system, their properties, and how they perform their task. The figure 2 shows database design for all the data tables and their relationship of the database.

RESULTS

The Airline Reservation System project is an implementation of a general Airline Ticketing website, which helps the customers to search the availability and prices of various airline tickets, along with the different packages available with the reservations. The design of each page of the flight reservation system has been carefully considered, utilization simpler UIs to make the flight selection and booking process easier [2]. This project also covers various features like online registration of the users, modifying the details of the website by the management staff or administrator of the website, by adding, deleting or modifying the customer details, flights or packages information. In general, this website would be designed

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to perform like any other airline ticketing website available online [3]. Figure 3 shows the implementation of the system.

Figure 3: Implementation of this system

CONCLUSION

Airline Reservation System has led to ease of airline ticketing, flight scheduling and also provided a means for customers to access and book flights from their homes. It has also increased the speed with which information about customers are retrieved and handled and flight scheduling is tasked. It reduces the scope of manual error and conveniently maintains any modifications, cancellations in the reservations. It not only provides flight details but also creates a platform to book tickets, cancels or modifies ticket timings or dates and even informs about the number of people on board. As technology evolves, these systems will likely continue to advance, offering even greater capabilities and improvements in the airline industry.

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