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**SAVITRIBAI PHULE PUNE UNIVERSITY
MASTER OF COMPUTER APPLICATION**

**Project Report on
“Airline Reservation System”**

**Under The Guidance Of
“Prof. Urmila Kadam”**

BY

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Class: MCA-I (Sem-II)

Year: 2022-2023



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Certificate

This is to certify that Mr. Suraj Shinde (244) Student of the class MCA-I (Sem-II) has successfully completed the Mini Project entitled “**Airline Reservation System**” during the academic year 2022-2023

Prof. Urmila Kadam

Project Guide

Prof. Ashok Deokar

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Director

Examiner 1

Examiner 2

Place : Pune

Date :

1. Introduction

1.1 Introduction

Airline reservation system is a modern way and improved method in which clients can easily access all information about flights without manual efforts. Most people now days travel by means of air, hence this project aims at simplifying their needs by offering a wide range of airlines and timings where they can choose from and book their travels. The online reservation system gives all details of flight schedules, cost, time, seats and check-in details making it easier for the traveler. The outcome was implemented using programming languages like PHP, html, and database management system {MySQL}, this improved method will help solve the manual system drawbacks which included time consuming and other manual errors. Hence it is more efficient

1.2 Existing System and Limitation of the Existing system

Existing System:

The existing system for airlines reservation typically involves manual processes, such as calling or physically visiting the airline ticket office to book a ticket, which can be time-consuming and inefficient. In addition, traditional airline reservation systems may have limited availability of seats and flight information, which can result in missed opportunities for customers to book preferred flights.

Limitation of the Existing system:

- **Manual Booking Process:** The existing system may rely heavily on manual processes for booking flights, which can be time-consuming and prone to human errors.
- **Limited Accessibility:** The current system may lack accessibility features for individuals with disabilities, such as visual impairments or mobility issues.
- **Lack of Online Booking:** If the existing system does not support online booking, customers may be limited to making reservations through phone calls or physical ticket counters, which can be inconvenient in today's digital age.

- **Security and Data Privacy:** If the existing system lacks robust security measures and data privacy protocols, customer information and payment details could be at risk of unauthorized access or breaches.

1.3 Need for the proposed system

The need for a modern, automated airline reservation system has become increasingly important as the demand for air travel has grown. A new system can offer real-time updates and availability of flights, allowing customers to quickly and easily book flights from the convenience of their computer or mobile device. Such a system can also provide airlines with important insights and data on customer behavior and preferences, enabling them to optimize pricing and flight schedules to meet demand.

2. Proposed System

2.1 Problem Statement

The existing airline reservation system faces several challenges that hinder its efficiency and user experience. These challenges include manual booking processes, limited accessibility, lack of online booking options, inefficient seat management, and inadequate integration with other airline systems. Additionally, the system may lack real-time updates, suffer from security and data privacy concerns, and fail to provide self-service options or a seamless user experience. These limitations restrict the system's ability to handle a large number of users, adapt to changing business rules, and integrate with external services. Therefore, there is a need for an enhanced airline reservation system that overcomes these limitations and provides a more efficient, user-friendly, and secure platform for airline bookings.

2.2 Objective of Proposed system

- To provide a user-friendly interface that makes it easy for customers to book flights, access information.
- To simplify the process of booking flights and make it easy for customers to search for available flights.
- To automate many of the manual processes involved in airline reservations, such as ticketing.
- To improve the overall efficiency of airline operations.
- To provide real-time information about flight availability, pricing, and schedules.
- To provide airlines with detailed data and analytics about customer behavior and preferences.s

2.3 Functional and Non-Functional Requirements

- User Registration and Authentication:
- Maintain user profiles with personal information and preferences.
- Provide a search interface for users to find flights based on criteria such as date, destination, and departure location.

- Enable users to select flights, choose seating preferences, and book tickets securely.
- Manage seat inventory for each flight and display seat availability to users during the booking process.
- Support the addition, modification, and cancellation of flights by airline administrators.
- Update flight status (e.g., delayed, canceled) and notify affected users.
- User-friendly interface
- High availability and reliability
- High security to protect user data

2.4 Scope of the system

- **Flight information:** The system should provide real-time information about flight schedules, availability of seats, and pricing.
- **Booking and reservation:** Customers should be able to make reservations and book flights easily through the system. The system should be able to handle a large volume of transactions efficiently and accurately.
- **Payment processing:** The system should support various payment options and ensure secure and reliable processing of transactions.
- **Customer management:** The system should be able to manage customer profiles, including personal and contact information, booking history, and preferences.
- **Flight management:** The system should allow airlines to manage their flights, including scheduling, seat allocation, and pricing

2.5 Module Specification

- Admin
- Customer
- Flights
- Airlines
- Feedback
- Billing

2.6 Operating Environment

Hardware Configuration

- **Processor:** Intel core i3
- **Ram :** 4 GB
- **Hard-Disk:** 100 GB

Software Configuration :

- **Front-End:** HTML, CSS, PHP.
- **Backend:** MySQL.
- **Operating System:** Windows 7 and above
- **Ide :** VS Code

3. Requirement Determination and Analysis

3.1 Feasibility Study

- **Technical feasibility:** The system should be technically feasible, meaning that it can be developed and implemented with the available technology and resources. This includes evaluating the hardware and software requirements, system scalability, and security considerations.
- **Economic feasibility:** The system should be economically feasible, meaning that the benefits of the system outweigh the costs of development, implementation, and maintenance. This includes evaluating the return on investment (ROI), cost-benefit analysis, and total cost of ownership (TCO) over the system's life cycle.
- **Operational feasibility:** The system should be operationally feasible, meaning that it can be effectively integrated into existing operations and processes. This includes evaluating the system's impact on the organization's workflow, staff training requirements, and potential risks and challenges.
- **Legal feasibility:** The system should be legally feasible, meaning that it complies with all relevant laws, regulations, and industry standards. This includes evaluating data privacy and security regulations, intellectual property rights, and contractual obligations.

4. System Analysis and Design

- 4.1 Entity Relationship Diagram :**
- 4.2 Use Case Diagram:**
- 4.3 Class Diagram:**
- 4.4 Sequence Diagram:**
- 4.5 Activity Diagram:**
- 4.6 Module Hierarchy Diagram:**
- 4.7 Component Diagram:**
- 4.8 Deployment Diagram:**
- 4.9 Web site map Diagram:**
- 4.10 Table Specification [Data Dictionary]:**
- 4.11 User Interface Design and Reports:**

5. Drawbacks and Limitation

6. Proposed Enhancement

7. Conclusion

8. Bibliography

9. Annexures