

Online Airline Reservation System

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Abstract: Flight schedules and fare rates, passenger reservations and ticket records, and flight data be contained in the Airline Reservation System. An airline's inventory are often separated into three classes (e.g., First, Business, or Economy), with each category having seats ranging from to, as well as costs and booking requirements. Inventory data be imported and maintained by a Schedule Distribution System, which connects to the Flight Reservation System via a standardized interface. Inventory control be one of the most important aspects of airline reservation inventory management. The price for each sold seat is calculated using the rates and booking criteria provided in the Fare Quote System.

Keywords: .NET, Database Connectivity, Database Server, Frameworks.

I. INTRODUCTION

The airline industry is experienced a significant transformation in recent years due to the increasing demand for air travel and the emergence of new technologies. The traditional airline reservation system has become outdated, and airlines are facing' challenges in managing' their operations and providing excellent customer service. The existing reservation systems aren't scalable, flexible, or efficient enough to handle the growing number of customers and the complexity of flight operations.

To address these challenges, this research paper proposes a computer science engineering solution for an airline reservation system that leverages modern technologies to provide an innovative and efficient booking experience for customers, simplify flight management for airlines, and provide travel agents with a powerful tool to manage reservations for their clients.

The principal form of travel agency computerization in the globe is airline Computerized Reservation Systems (CRS). These systems handle the millions of reservation requests and cancellations, as well as price and reservation pricing' requests that travel agents use—not to mention the thousands of database updates that happen every day. For its airline owners, the CRS serves as an incredibly effective and useful distribution and marketing' instruments. The competitive climate for travel agencies nowadays is primarily defined and regulated by airline CRS[10]

The following' topics are covered in this report:

- Airline reservation and distribution systems.
- CRS processing and communication concepts.
- Relationships between CRS and other industry components.
- CRS and airline competitive strategies as they relate to reservation technology.
- non-reservation systems that interconnect with airline CRS.

- Profiles of the major international airline CRS.". In English.

II. METHODS AND MATERIAL

2.1 Methodologies

Hardware:

processor: Pentium Vi 2.5ghz

Ram: 512mb Ram

PC: 15" Color Hard

Dish:250 Gb

CD drive: Lg52x

Keyboard: Standard 102 Key

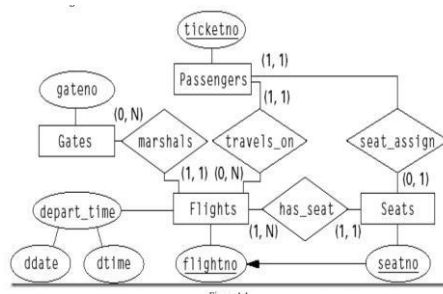
Mouse: Optical

Software: coding: java – concepts [Spring, AWT]

database: MySQL operating system: windows 10

or overhead

2.2 Diagram



2.3 Applicability

- 1.This project fixes the matter of the ancient reservation system.
- 2.With definite modifications, it can be usable on any online booking field.
- 3.One of the main profits in nowadays life is that a reservation can be taken from any place of the world.
- 4.The user doesn't have to be present physically to draw a silvery reservation slip. It will automatically do by the order

2.4 Product Definition

- 1.Plane type: This describes the physical type of the plane. It mandates the capacity of first, executive, business, and economy seats that a flight can have.

2. Airport: An airport includes a name, the urban it's in, and its airport identifier.
3. Flight: A flight is identified by its flighted. A flight represents a unique "flat," i.e. one that is scheduled to run at a particular time, from one place to another. A flight goes over a set of roads.
4. Route: A route is just a tuple of airports: (StartAirport, EndAirport), and each route has a unique route identifier. A flight runs over a route only if it runs from the start airport to the end airport, possibly stopping in between at other airports. A route is primary for a flight if the flight runs nonstop from the start airport to the end airport. [9]
5. Token: A token is distinctly identified by a token identifier. The token could be a passer ticket or a cargo ticket and can be booked under a passer profile or a user profile. A token is booked on a flight for a route that the flight is linked with. A passenger ticket comprises details about the passenger and a cargo ticket about a cargo.
6. The Design: A design comprises allowance percentages on various groups awarded on certain flights and for certain people or return flights. Design identifiers have a type code determining what they are valid for and a period code indicating whether they are valid as of now or not. A design is explained for a flight and for a particular route.
7. Official: An official is a person who can book tickets for others and can find to retrieve the whole list of passers by boarding a flight. An official works at an airport.
8. Profile: A profile denotes that a person has been verified as genuine and can book tickets/ execute inquiries.

III. LITERATURE SURVEY

In developing countries, airplane reservations are made either physically or electronically. Despite the approach, reservations and payments are done in a piece-meal format, which is cost-friendly, tedious, and repetitive, leading to waste. We demonstrate an entirely integrated airline reservation and payment system. Authors are a Customer/Proxy/Server system, with the intermediate layer serving as a portability-conscious core layer that gives nonstop self-service assistance. Flexible revolution is produced for airline admins in developing countries as a route to progress productivity, reduce activity costs, increase income genesis, and establish value-added customer care for airline travellers, according to the study. If a person wishes to purchase a flight token in a few countries, he should do one of the following: By hand travels to the airport to purchase his ticket. Obtaining a paper cutout of the ticket form, manually filling it up, and submitting it to the airport. Fill out the Token Form on the computer and print it off as a paper document to present at the airport. Booking the token online at one of the nominated token counters. Despite the methods allow you to purchase a token online, not all is done so. Travelers may not have control over how this approach is taken. [1]

IV. SYSTEM DESIGNING OF FLIGHT SEATS BOOKING SYSTEM

4.1 Initiate Design Stage

Regarding this period, a system is being built that satisfies the given requirements. The design phase of software progress handles the transformation of the client's demands into a logically functioning system. Typically, design is conducted in the subsequent steps: In this period, the system is designed at block level. The blocks are formed based on the analysis conducted in the problem identification stage. Various blocks are crafted for various functions, emphasizing the minimization of information flow between blocks. Consequently, all activities necessitating more interaction are assembled in one block.

1. Design diverse blocks for the total system processes.
2. Design smaller, compact, and functional modules within each block.

- 3.Design diverse database frameworks.
- 4.State details of programs to attain the desired functionality.
- 5.Design the form of inputs, and outputs of the system.

4.2 Additional Design Stage

In the ensuing phase, the detailed design of every block is being executed. User Interface Design: User Interface Design is related to the conversation between a user and the computer. It covers everything from commencing the system or logging into the system to the final presentation of desired inputs and outputs. The entire flow of screens and messages is denoted as a conversation. Preliminary Product Description: The initial step in the system development life cycle is the preliminary inquiry to identify the feasibility of the system. The aim of the preliminary investigation is to assess project inquiries. It is not a design study, nor does it accommodate the gathering of details to characterize the business system in all respects.[10]

- 1.Clarity and comprehend the project inquiry
- 2.Ascertain the magnitude of the project. Evaluate costs and benefits of alternative methodologies.
- 3.Determine the technical and operational feasibility of alternative methods.
- 4.Report the results to management, with recommendations outlining the accommodation or refusal of the proposition.

4.3 Current System of Flight Taking Booking System

In the current system, the exams are only conducted manually, but in the proposed system, we have to automate the exams using this application.

1. Absence of data security.
2. More workforce.
3. Time-consuming.
4. Consumes a vast volume of paper work.
5. Requires manual computations.

V. PROPOSED SYSTEM OF FLIGHT SEATS BOOKING SYSTEM

The aim of proposed systematic is developing a system of facilities improved. The proposed system overcomes all the limitations of the existing system. The system providing proper securities and reducing manual work.

- 1.Security of data.
- 2.Ensure data accuracy is.
- 3.Proper controls of higher officials.
- 4.Minimize manual data entry.
- 5.Minimum time need.

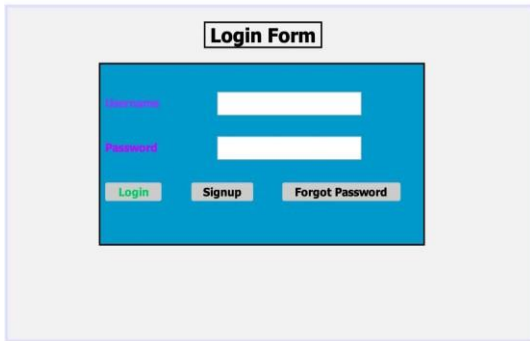
5.1 Data Dictionary

This is normally presented as the data about data. It is also called as metadata sometimes which gives data about the stored data in the database. Define each data term encountered during the analysis and design of a new system. Data elements can describe files or the processes.[2]

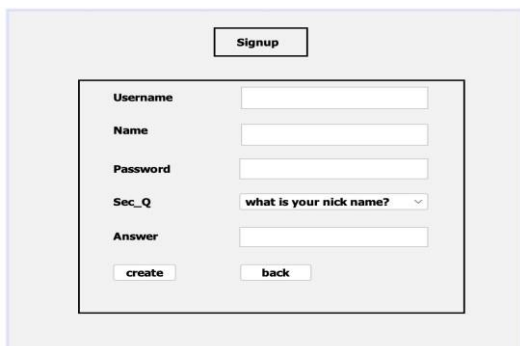
Following are some major symbols utilized in the data dictionary = equivalent two + and [] either/or () Optional entries.

VI. RESULTS AND ANALYSIS

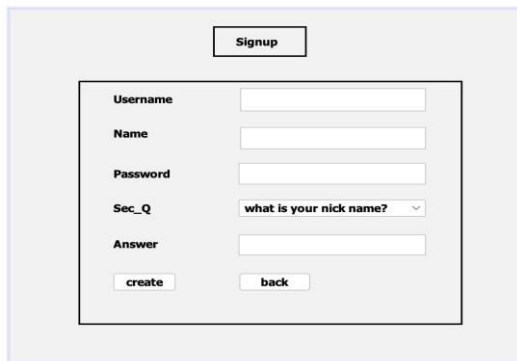
Login page:



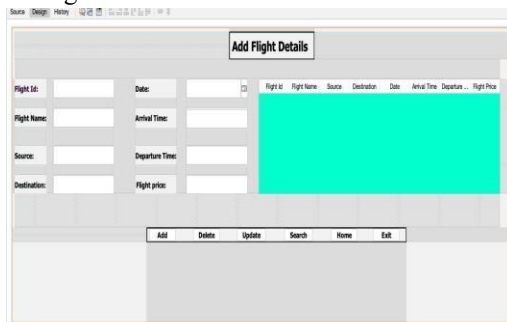
Signup page:



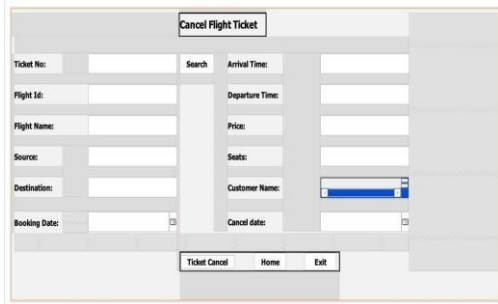
Welcome page:



Add flight details:



Cancel flight tickets:



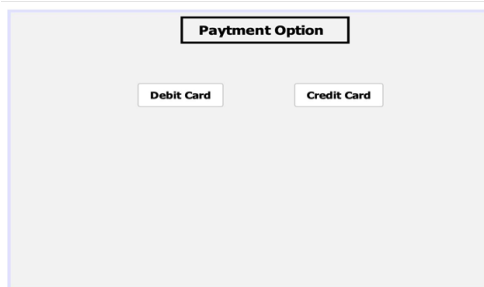
A web form titled "Cancel Flight Ticket". It contains several input fields for flight details: Ticket No., Flight Id, Flight Name, Source, Destination, Booking Date, Arrival Time, Departure Time, Price, Seats, Customer Name, and Cancel date. There are "Search" and "Ticket Cancel" buttons, along with "Home" and "Exit" navigation options at the bottom.

Search flights:



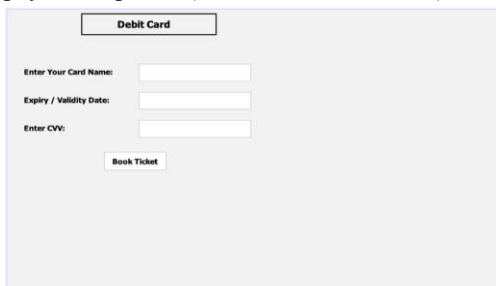
A composite form with two main sections. The left section, "Search Flight Details", includes a search bar with "Source", "Destination", and "Date" fields, and a table with columns for "Flight Id", "Flight Name", "Source", "Destination", "Date", "Arrival Time", "Departure Time", and "Flight Price". The right section, "Ticket Booking Form", contains fields for "Ticket No.", "Flight Id", "Flight Name", "Source", "Destination", "Date", "Arrival Time", "Departure Time", "Price", "Total Price", "Date", and "Customer Name". Navigation buttons "Home", "Exit", and "Book Ticket" are at the bottom.

Book Flight tickets:

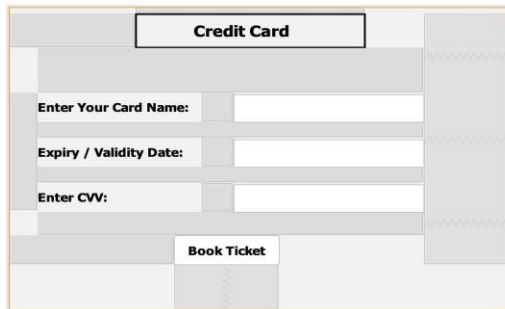


A simple form titled "Payment Option" with two buttons: "Debit Card" and "Credit Card".

payment options (debit card / credit card):



A form titled "Debit Card" for payment details. It includes input fields for "Enter Your Card Name:", "Expiry / Validity Date:", and "Enter CVN:". A "Book Ticket" button is located at the bottom.



The image shows a web form interface. At the top, there is a tab labeled "Credit Card". Below this, there are three input fields: "Enter Your Card Name:", "Expiry / Validity Date:", and "Enter CVV:". Each field has a corresponding text input box. Below these fields, there is a button labeled "Book Ticket". The form is set against a light gray background with a white border.

VII. CONCLUSION

Conclusion of the Project of Flight Ticket Booking System Our project is humble venture to satisfy the needs to manage their project work. Several user-friendly coding also adopted. This package shall prove powerful package in satisfying all the requirements of the school. The objective of software planning to provide a frame work that enables the manager to make reasonable estimates made within a limited time frame at the beginning of the software project should updated regularly as project.

- At the end concluded that we have made the effort on the following points
- A description from the background and the context of the project and the relations to work already done in the areas.
- Made statements of the aims and objectives of the project.
- Description of Purpose, Scope, and applicability.
- Define the problem on which we working in the project.
- We describe the required Specifications of the system and the actions that can be done on those things.

We understand the problem domain and produce a model of the system, which describes operations that can perform on the system.

Features included and operations in detail, included screen layouts. We designed user interface and security issues related to system.

Finally, the system implemented and tested according to test cases.

VIII. REFERENCES

- [1] <http://www.javaworld.com/javaworld/jw-01-1998/jw-01-Credentialreview.html>
- [2] <http://www.jdbc-tutorial.com/>
- [3] <http://www.tutorialspoint.com/mysql/>
- [4] <https://www.tutorialspoint.com/java/>
- [5] <http://www.javatpoint.com/java-tutorial>
- [6] <https://docs.oracle.com/javase/tutorial/>
- [7] <http://www.wampserver.com/en/>
- [8] <http://www.JSP.net/>
- [9] <http://wekipedia.org>
- [10] <https://google.com>