

Airline Reservation System

Ayushi Jaiswal^{#1}, Shivam Kaushik^{#2}, Ashwani Kumar^{#3}, Shubham Goel^{#4}

[#]Department of Computer Science & Engineering, Inderprastha Engineering College Ghaziabad, Uttar Pradesh, India

1.ABSTRACT

Airline Reservation System is the software aimed at providing a wide range of access to the administrator in managing and monitoring the complaints registered by the passenger regarding the problems they face in accessing the connections extended by the Airline Reservation System.[1] The administrator can even maintain the record of the Passenger/Admin in the organization in allocating the tasks of attending to the complaints raised by the passenger.[2]

2.INTRODUCTION

Making reservations to a place is typical, we've got to stand in queues, take up the push coming from back, go and stand there at the reservation counter for hours with nothing more to see than an old man sitting behind the wall and the only way of interaction between him and you is a small window from which you could probably see his face only... but then a question arises with an answer following it..what are you thinking?[1] You are here to get the reservation done! Go ahead and get it done. Here lies the dilemma, in a situation like this where you'd probably sneak away and rather put anyone forward than yourself is at times as emergent then you could ever expect. Now you have to get the reservation done and then don't even wish to stand there...the only thing that comes in mind is GOD life is so challenging! Well for such troubled folks the only solution that exists is an online airline reservation

system where you could book your ticket, search for flights, in a glimpse of an eye... this is what we have served and this what our project is all about[2].

Well to begin a task we first need to analyze the current manual system and then find the problems in this existing system. Using the result of the analysis, we should develop a new computerized online reservation system that can solve the problem of the users.[3]

The system developed will be 24x7 application based systems for the customer to make reservations and book flights to the places of their preferences.[4]

The system developed will easily accessible to the users and will surely withstand the global trend of the market to meet the customer satisfaction. The system will meet the requirements as specified i.e., to build an Inventory System, Fare Quote and Ticketing module and a Departure Control System. The data will be managed through Schedule Distribution System through standardized interfaces. Authority will depend on the type of the user logged in, admin has the supreme authority.[5]

3. LITERATURE SURVEY

The Web technology International defines a Airline reservations system as a computerized system(used by mobile, tablets, computer) used to store and retrieve information about the flights and conduct transactions related to air travel agencies. Originally designed and operated by the airlines. CRSES was later extended for the use of travel agencies. Major CRSES operation that book and sell tickets for multiple airlines are known as global distribution systems (GDS). Airlines Reservation has divested most of their direct holding to dedicated gds companies, who make their systems accessible to costumers through Internet gateways. Modern GDSSES typically allow to book airline tickets.

Airline reservations systems contain the information like airline schedules, route and timing of flight, fare tariffs, passenger booking and ticket records and cancellation of tickets . An Airline's direct distribution works within their own reservation system, as well as pushing out information to the GDS. A second type of direct distribution channel is costumers who use the internet or mobile applications to make their own reservations.

HISTORY-

Airline Reservation System has been automated in 2003 using Html as frontend and MS access as backend. Systems are well adopted but could cater only stores the complaint but could not send complaints. It requires lot of attentions and risks from the user's side. Other departments such as Vendor are not automated. So this Intranet solution proved to be extremely good. In the present system the user has to login and he can send the problem. He also maintain the details of all old complaints. Administration cannot maintain old complaint in this systems and last

disadvantages of database. In this data base is MS access so that's why it's old one.

4. PROBLEM IDENTIFICATION

During the literature survey, it was found that the Airline Reservation System utilized by Overland Airways offer the fundamental highlights of a reservation system, for example, searching for flights, choosing available flights and paying for the reservation. This disclosure realized making an enhanced .

- Failure of travelers to choose a seat(s) for their picked flight(s) from the current reservation system. This has eventually brought about time being squandered at the registration counter in appointing seats to travelers before they are permitted to load up the plane.
- No choice of travelers printing their ticket from the current system.
- No warning of travelers in case of flight cancelation or deferrals .
- No entrance to air ship support reports easing traveler fears as respects to air travel and its disaster.

5. SYSTEM ARCHITECTURE

The created system will ease airline booking make a record to the client, spare insights about the client, give a menu of outings and their costs and dates to be held and there are a customer mind services and insights about the organization and how to get in reach to them.

System outline

The computer-based reservation application utilizes client/server engineering. At The client by utilizing android gadget can interface by means of the internet with a server that JSP and MySQL in

server side in charge of the clients' solicitations procedures and spare or return information from the database. fig 1 speaks to review of proposed reservation system outline.

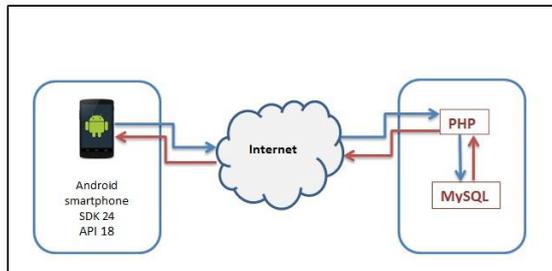


Fig 1. System Overview Design

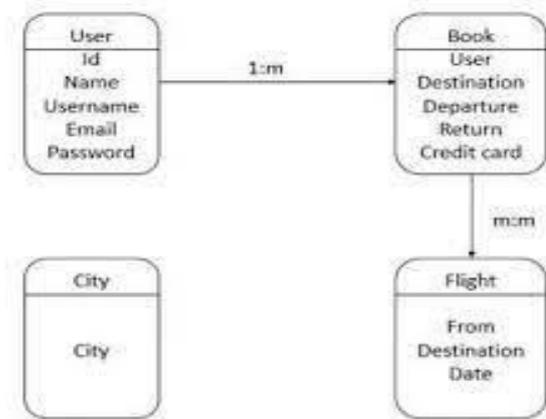


Fig 2. Database Table

B. System Arrangement

There is Each assignment needs few contributions to continue to the following undertaking movement as the accompanying:

- The primary task is to check the client validation account or enroll for a new record to exchange to book a flight task.
- At book flight action the client has to fill the expected fields to move to
- Confirm reservation (after check flight accessibility) which spares the client booking data in the database.

C. Database outline

The database connected to this application is MySQL which is worked with in free host server. Four tables are made which are; clients, flight, city, and book. Client data, booking data would be provided in clients and book table. Admin of system has the capacity to refresh flight data by including new flight, change client data or booking data, contact with the client if there is a mistake or flight cancellation or any an urgency. Fig 2 shows database tables and their records.

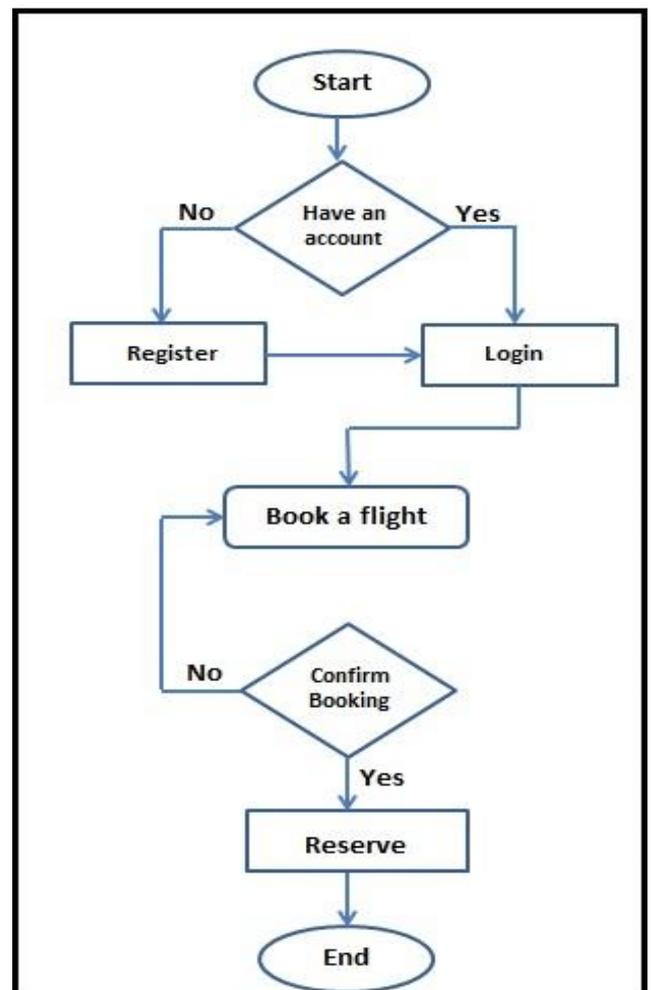
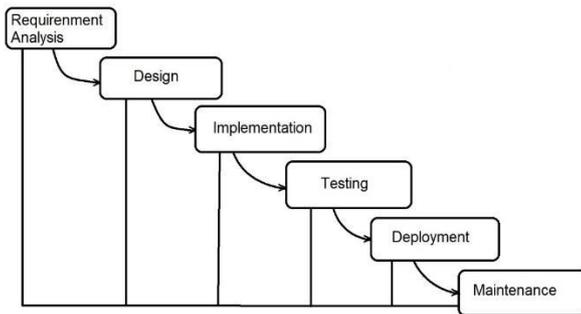


Fig. 3. System Architecture

6. METHOD

For development SDLC, Software Development Life Cycle's Waterfall Method is used. This method is a system development cycle in software. There are several stages, as follows:



6.1 Planning

Business analyst set up a meeting with the customer to gather all the information like what the customer wants to build, who will be the end-user and front user, what is the aim of the project. Before building a product there is most important knowledge about the project and understand what is the project.

6.2 Design

In this phase, the requirement gathered in the SRS document is used as an input and software architecture that is used for implementing system development is derived.

6.3 Implementation

After the requirements and design is completed, the next phase of is the implementation or coding of the software. In this phase, developers done coding according to the need of project.

6.4 Testing

Testing is important for all the software. All the factors developed in the implementation and coding phase that is integrated into a system after

testing of each unit. the entire system is tested for any faults and failures if find any fault we should recover this fault,.

6.5 Deployment

Once the software testing is done; the product is provided in the customer environment or user or released into the market environment.

6.6 Maintenance

when some issues which come up in the client and user. To fix those problems, patches are released. Also to enhance the software some better versions are released. Maintenance is done to deliver these changes in the market environment..

7. SYSTEM DESIGN

Logical design -

In case of logical model of the system was developing indicate all the vital steps the system development went through. the research used case tools like flow chart and data flow diagram. Model are vital in the development of the system. The stage include the graphical user interface design, input design in which the user inputs in data, the outputs design which display the results of what a user will have entered, and database design where data is stored for easy management. These designs provides the technical blueprint from which the system was built.

Conceptual design-

This is a description of the proposed systems in terms of a set of integrated idea and concepts about what it should do behave and look like that will be understandable by the user in the manner intended. The process begun with identify the

entity required by the user and then identifying all the important relationship that exist between the entities. The result of the model of the user interface that has been developed.

Physical design-

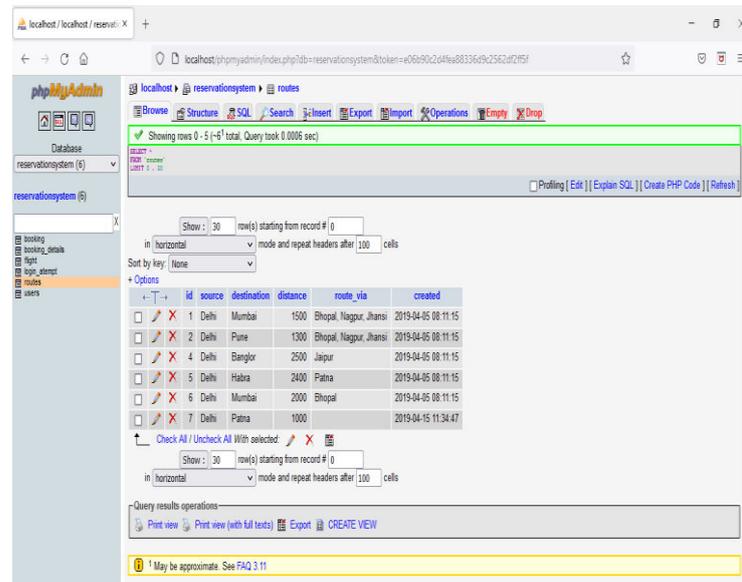
This is the physical realization of logical design. Tables forms and reports were created and relationship defined among these tables and security constrains set. During the physical design the research translated the expected scheme into actual database structures and at this time, he had to map:

Entities to tables

Relationship to foreign key constraints

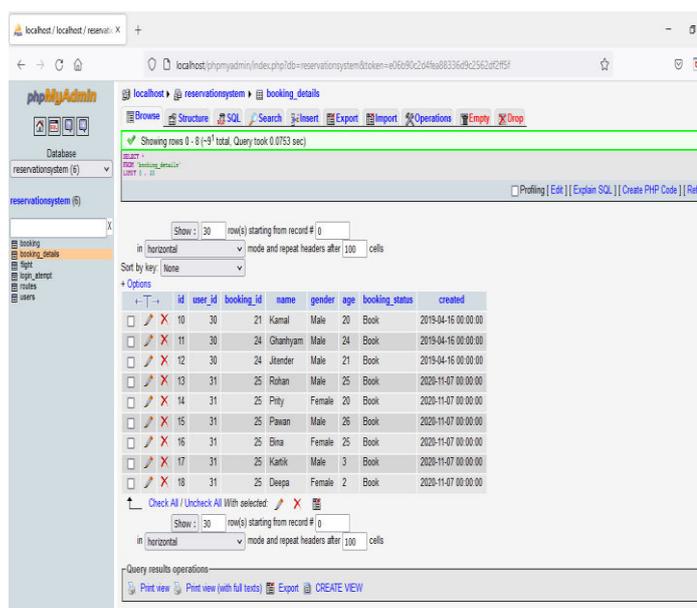
Attributes to column is primary unique identifiers to primary key constraints

Unique identifiers to unique key constraints

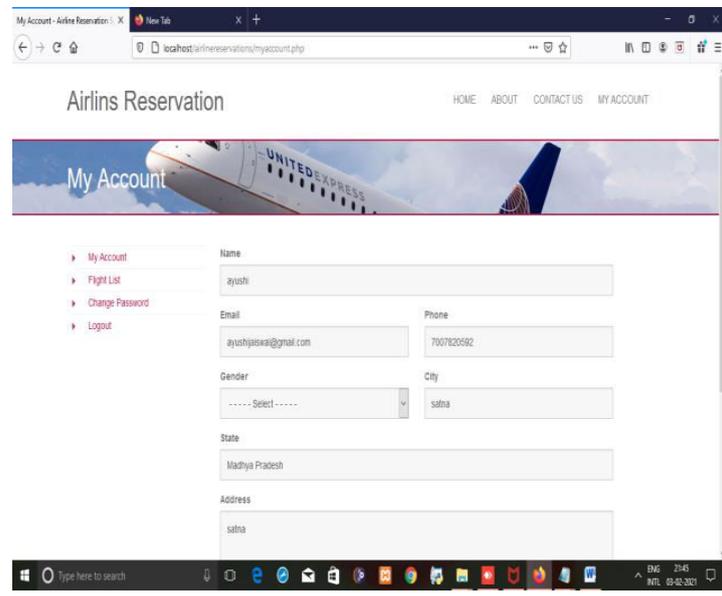


8. RESULTS

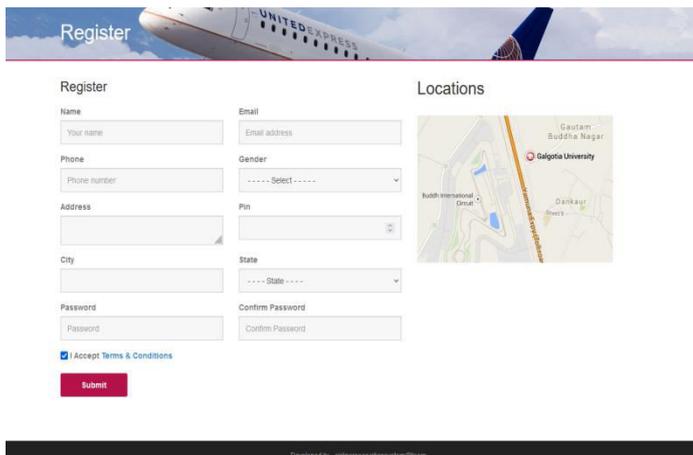
8.1 Database Creation



8.2 Login Page

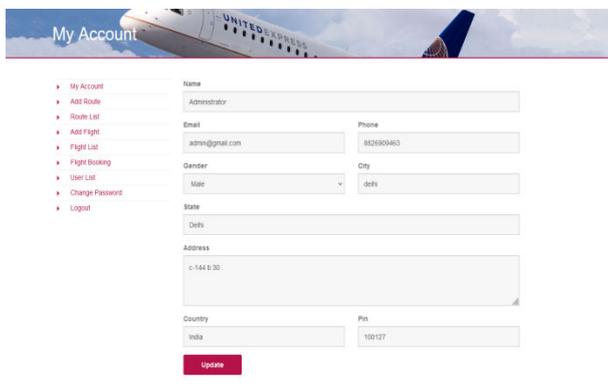


8.3 Register page:



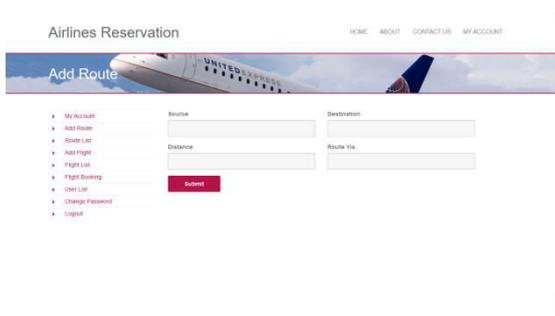
The screenshot shows a registration form titled "Register" with a "Locations" map on the right. The form fields include: Name (Your name), Email (Email address), Phone (Phone number), Gender (Select), Address, Pin, City, State (State), Password, and Confirm Password. There is a checkbox for "Accept Terms & Conditions" and a "Submit" button. The map shows Galgotia University and surrounding areas.

8.3 user account



The screenshot shows a "My Account" page with a sidebar menu containing: My Account, Add Route, Route List, Add Flight, Flight List, Flight Booking, User List, Change Password, and Logout. The main form fields include: Name (Administrator), Email (admin@gmail.com), Phone (882909483), Gender, City (delhi), State, Delhi, Address (c-144 B/30), Country (India), and Pin (1100127). There is an "Update" button.

8.4 Register of flight



The screenshot shows an "Add Route" form on the "Airlines Reservation" page. The sidebar menu is the same as in the previous screenshot. The main form fields include: Source, Destination, Distance, and Route Via. There is a "Submit" button.

Login page shows two fields for user name there is write your name and password there is choose a password and another is one sign in button. This will allow only person who click on sign in button.

User account

The registered user can directly do the booking of flights or cancel the flight and if user is know he may first register or he only sees the flight details when coming and going. But for the reservation of flight ticket user must registered

Creation of new user account

When customer is new he should fill the form containing field like Name, Age, E-mail Address and Contact No. , Gender, also User_Id and Password.

Checking Availability

user check the available flight and the user should input the city, date of journey, journey of time.

Reservation of Flight

After providing all information the administrator will ask use for confirmation the flight. After confirming the information of flight the seats of flight get reserved and confirmed.

Canceling / Rescheduling of Ticket

if you want to cancel the flight you go to the site and cancel the flight and also you reschedule the flight.

9. CONCLUSION

Came the concluding part of the project, after strenuous efforts and religious hard work finally we were able to complete the project. The project completed by us is a blend of hard effort, excessive work, religious punctuality and strenuous inputs. It made us work sincerely with team spirit to achieve the invincible. The project though was assigned to us quite a time before but then it required lot of brain to implement and accomplish the desired requirements within that stipulated time. But as it said that impossible is nothing so keeping up to that reputation of thing we overcame all the hurdles and deviations in the

path of creation of our project tried our level best to overlook them and learn from those errors. With due help of books and the lectures taught in the class we were finally able to implement the required features and achieve success. Though this project helped us improve our technical skills, it also honed our managerial skills. It provided us to think on the perspective of a businessman, and then work accordingly keeping in mind small-small requirements that could arise only when we go deep into it to the extent of developing it.

This project helped us master our technical skills to a great extent. It did enhance our skills of using GUI concepts in PHP and also helped us to learn more and more field related work that could not have been learnt merely by attending new web page. We got to learn the usage of buttons, and various other options and then their significance in an interactive website. Hence concluding we would acknowledge the fact that this helped us in improving ourselves in many ways and did prove more beneficial to us than its original value thought of. Since we were able to complete the work assigned to us in the stipulated span of time it made us realize the gravity of time and made us gain confidence in using these concepts in future. Our project made us learn the skills of working in groups and gain team spirit. To the best of our aid our project is working as per our expectations and so it is sure to be popular and grab a market if and when launched...

10. REFERENCES

- [1] Arsanjani, A. (2004). how to identify, specify, and realize services for your SOA. Service-oriented modeling and architecture
- [2] Atkinson, B. (2015). How does online check in work? From <http://www.travelsupermarket.com/blog/how-does-online-check-in-work/>
- [3] Bilotkack, V. and Rupp, N. . (2011). A guide to booking airline tickets online. Mimeo, Uni-versity of California, Irvine.
- [4] C. Winston, S. Morrison. (1995). The Evolution of the Airline Industry. Brookings Institution Press
- [5] Crosby, T. (5th August, 2015). How Airline E-Tickets Work. From <http://adventure.howstuffworks.com/destinations/travel-guide/tips/how-airline-etickets-work.htm/>
- [6] Erradi, A., Anand, S., Kulkani, N. (2006). An Architectural Framework for Service Definition and Realization. On the proceedings of IEEE international conference on services computing, 6.
- [7] GazetteLive. (2011). The benefits of booking flights online. From <http://www.gazettelive.co.uk/news/local-news/benefits-booking-flights-online3693877/>
- [8] Jarvenpaa L. S, and Todd A. P. (1996). Consumer reactions to electronic shopping on the World Wide Web. International Journal of Electronic Commerce, Vol1(2), 59-88.
- [9] Johanson, M. (2014). How The Airline Industry Has Evolved In 100 Years of Commercial Air Travel. From <http://www.ibtimes.com/how-airline-industry-has-evolved-100-years-commercial-air-travel-1524238/>
- [10] Li X, Liu Z and He J. (2004). A Formal Semantics of UML Sequence Diagram. Presented at and published in the proceedings of ASWEC2004
- [11] Rudstrom, A. and Fagerberg, P. (2004). Socially Enhanced Travel Booking. a Case Study. Journal of Information Technology and Tourism, 6(3).

[12] Shao, Q., Chen, Y., Tao, S., Yan, X. and Anerousis, N. (2008). a ticketrouting recommendation engine for enterprise problem resolution. Proceedings of the VLDB Endowment, Vol 1(2)

[13] Shon, Z., Chen, F. and Chang, Y. (2003). Airline e-commerce: the revolution inticketing channels. Journal of Air Transport Management., Vol 9(5).

[14] Smith, M. J. (2002). The Airline Encyclopedia. Scarecrow Press, New York. Microsoft Encarta Premium

[15] Winston, C., Morrison, S. (1995). The Evolution of the Airline Industry.

Brookings Institution Press