

A Mini Project Synopsis on
Airline Management System

S.E. - I.T Engineering

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CERTIFICATE

This to certify that the Mini Project report on **Airline Management System** has been submitted by Mitali Chaudhari (20104104), Sakshi Parab (20104059), Sampada Mahadik (20104092) and Parthavi Khatu (20104108) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2021-2022** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

Introduction

Airline management systems are systems that allow an airline to add flight details, to sell their inventory (seats). It contains information on schedules and fares and contains a database of reservations (or passenger name records) and of tickets issued. It is part of Passenger service system (PSS), which are applications supporting the direct contact with the passenger

It is one the modifications that were carried out in the Passenger Service System so that the working and availability of Service area can be broadened. This is basically an interface of Global distribution System to carry out reservations on the desired airline from any place. This makes the life of passengers very easy as they don't need to stand in queues for getting their seats reserved and they can easily make reservation on any airline just from a single system. On the other hand, it also removed an extra burden from the Airline Department as most of the passengers and travel agencies use this service instead of making reservations from the counters.

1.1 Purpose

- The purpose of the project is to build an application program to reduce the manual work for managing the Airlines Ticket, Flights, Bookings, Customer.
- The purpose of the project is to ensures the complete freedom for users, where user can login to this software and book his tickets on his own.
- The main task is to provide the possibility of buying tickets without outside help.
- System provides inventory and rates in real time to customers as well as travel agent
- The system aim is to provide the best user service with the best price which is available in the industry

1.2 Objectives:

- To manage flight schedules, book tickets, and make payments.
- To manage all the information about passenger reservation, booking enquiry.
- To build an application program to reduce the manual work for managing details through internet.
- To simplify the task for airlines and to easily operate.
- To offer many advantages for both travellers and airlines, including security, flexibility, cost, and convenience.
- Help airline system in making their business more efficient
- Complete automation information about the addition and modification of records
- Provide efficient and reliable structure that can handle large of customer data.

1.3 Scope:

The name of the software is “AIRLINE MANAGEMENT SYSTEM”. This software provides options for admin to edit flight details and for customer to view different flights available with different timings for a particular date and provides customers with the facility to book a ticket, modify or cancel a particular. Admin can edit all the flight details, delete a flight, update the flight details.

- Our scope is to develop the easy to use and convenient online system which helps op easily buy the tickets.
- The system is mainly based on the rational database with the reservation functions and flights reservation.
- The regular passengers can use this system to get the information regarding the flights.

- The database supports many cities across the world and various numbers of flights through using the airline companies.
- This will help users in booking online tickets from anywhere.
- This software will make the life of passengers very easy as they don't need to stand in queues for getting their seats reserved and they can easily make reservations on any airline just from a single system.
- The users follow the same steps no matter what is their mode of system access is, namely, phone, internet or the information desk at any part of the world, keeping consistency in the system.
- Users can create their permanent accounts in the system and need not fill the required information every time they book, saving a lot of time of the customers.
- From the user's point of view the interface of the system is very easy and no technical knowledge is required to use the system.

Chapter 2

Problem Definition:

The Airline Management System provides an interface to schedule flights and reservations for an airline through internet. Its responsibility is to keep track of system users, customers, Airbus information, flight information and cancellation.

This is to maintain flight details, flight status, reservation, cancellation process. The flight status which maintains flight ID, flight name, arrival time, departure time and also it contains details about the seats. The flight detail contains the details about needed flight name as well as the details about the seats. This contains the flight ID, ticket number, passenger name, destination, flight name, travel charge, date of travel is reserved. Then the cancellation process is also carried out. Traveling seems to be everyone's goals these days. Vacationing a foreign country, discovering its culture and meeting different people, seems thrilling and fun! Finally, you'll be able to see those picturesque landmarks in person and not just on your newsfeed. However, traveling is not just about the glitz and glamour. There are things that can make your first trip turn into a disaster.

Baggage Theft

Delayed Flights

Uncomfortable seats

Hidden charge.

2.1 User Problem Statement:

A problem statement is a concise description of the issues that need to be addressed by a problem-solving team and should be presented to them before they try to solve the problem. When bringing together a team to achieve a particular purpose provide them with a problem statement. The primary purpose of a problem statement is to focus the attention of the problem-solving team. However, if the focus of the problem is too narrow or the scope of the solution too limited the creativity.

In project management, the problem statement is part of the charter. It lists what's essential about the project and enables the project manager to identify the project scope as well as the project stakeholders.

Chapter 3

3.1 Proposed System:

The aim of the proposed system is to address the limitations of the current system. The requirements for the system have been gathered from the defects recorded in the past and also based on the feedback users of the previous metric tools.

- In our proposed system we have the provision for adding the details of the customers by ticketing manager with the help of predefined format and drop-down lists.
- So, the overhead of the ticketing manager is become less.
- Another advantage of the system is that it is very easy to delete a flight entry when it found unnecessary.
- All the manual difficulties in managing the customer details in a airline database have been rectified by implementing computerization.
- Our proposed system has several advantages:
 1. User friendly interface
 2. Fast access to database
 3. Less error
 4. More Storage Capacity
 5. Look and Feel Environment
 6. Quick transaction

3.2 Features and benefits:

Features:

- Allow passengers to choose their seats.
- Trust worthy and reliable in all respects.
- Supports frequent flyers programs.
- Display flight options
- Display fare rule sand baggage information.
- An Online payment facility is available for the booking makers.
- This software provides a fast and error-free online reservation facility to the users.
- The integration of our online flight booking software can assist you to expand the huge travel products provided by you, in an exceedingly short period of time.

Benefits:

1. User-friendly interface
2. Fully customized
3. Real-time update
4. Cut down operational costs
5. Easy cancellation process
6. Easy refunds after the cancellation
7. 24/7 booking available for customers
8. Easy to integrate with the website
9. Increase the accuracy of the system
10. Increase the number of bookings for the flight ticket

Chapter 4**Project Outcome:**

1. User can log in if he/she already have an account using online booking system.
2. User needs to register and use the application any time.
3. Customer can book flight to their convenience.
4. They can make payment and can also cancel or book the flights in case of any emergency.
5. Admin can modify, add or remove the flights details.
6. User can retrieve the password.

Chapter 5

Software used:

- Front End: -
 - NetBeans IDE- version 12.5
 - Java JDK-oracle SE Development Kit 17
 - JRE-oracle Jre 8

- Back End: -
 - Administration database – MySQL
 - Xampp server
 - PhpMyAdmin

Chapter 6

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the client's requirements into a logically working system. Normally, design is performed in the following in the following two steps:

1. Primary Design Phase:

In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimizing the information flow between blocks.

Thus, all activities which require more interaction are kept in one block.

2. Secondary Design Phase:

In the secondary phase the detailed design of every block is performed.

The general tasks involved in the design process are the following:

1. Design various blocks for overall system processes.
2. Design smaller, compact and workable modules in each block.
3. Design various database structures.
4. Specify details of programs to achieve desired functionality.
5. Design the form of inputs, and outputs of the system.
6. Perform documentation of the design.
7. System reviews.

Chapter 7

Project Scheduling Template

| Sr. No | Group Member | Time duration | Work to be done |
|--------|------------------|---------------------------------|---|
| 1 | Mitali Chaudhari | 1 st week of October | <p>Implementing 1st module/ functionality (<i>Designing the Login page/customer will login with security verification and will enter to the main menu</i>)</p> <p>Testing 1st module</p> <p>(Login /This will consist of the login page where user will have to enter the following details:</p> <ul style="list-style-type: none">• Username• Password <p>Implementing 2nd module (Registration page) where user have to register him/her in our portal. User needs to enter the following details</p> <ul style="list-style-type: none">• Full name• Username• Password• Contact no• Email id• Answer of his security question useful in case he/she forgets the password. |

| | | | |
|-----------------|-----------------|--|--|
| <u>2</u> | Parthavi Khatu | 3 rd week of October | <p>Implementing 3rd module/ functionality (designing next page/:)Search and book tickets: - Here the user can search the flight and book according to convenience</p> <p>Designing payment page for successful booking.</p> |
| <u>3</u> | Sakshi Parab | <i>1st week of November</i> | <p>Implementing 4th module/ functionality (<i>Transfer page/ functionality: On this page user can view the list of flights</i>)</p> <p>Creating database for all flight details.</p> |
| <u>4</u> | Sampada Mahadik | 2 nd week of November | Implementing 5 th module/add flight details. (Here admin can add, delete, update and search the flight) |

Chapter 8

Conclusion:

It reduces the scope of manual error and conveniently maintains any modifications, cancellations in the reservations. It not only provides flight details but also 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

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project.
- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts.
- We designed user interface and security issues related to system.
- Finally, the system is implemented and tested according to test cases.

References:

1. ["Passenger Reservations"](#). *IBS Software*. Retrieved 2021-07-30
2. <https://stackoverflow.com/>
3. https://en.wikipedia.org/wiki/Airline_reservations_system

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