**A**
**PROJECT REPORT ON**

# AIRYATRI
# Online Flight Booking System

SUBMITTED IN
PARTIAL FULFILLMENT OF

**DIPLOMA IN ADVANCED COMPUTING (PG-DAC)**


**BY**

**Apurva Telang**
**Saurabh Chhimwal**
**Madhur Gupta**

**UNDER THE GUIDENCE OF**

**<Vrushab Kumthale>**

**AT**

**SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY,**
**KARAD**

**SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY, KARAD.**


# CERTIFICATE

This is to certify that the project

# AIRYATRI
# Airline Reservation System

Has been submitted by

**Saurabh Chhimwal**
**Madhur Gupta**
**Apurva Telang**

In partial fulfillment of the requirement for the Course of **PG Diploma in Advanced Computing (PG-DAC SEP2023)** as prescribed by The **CDAC** ACTS, KARAD.

Place: Karad

Date: 19-FEB-2024

**<Project Guide Name>**
**Vrishabh**

**<Alumni Mentor Name>**
**Alumni Mentor**

# ACKNOWLEDGEMENT

Dear [Project Stakeholders/Team Members/Clients],

We are pleased to express our gratitude for your involvement and contribution to the successful implementation of the Online Bus Booking Project. Your dedication, collaboration, and support have been instrumental in bringing this project to fruition.

We acknowledge the effort and commitment demonstrated by each team member and stakeholder throughout the development and execution phases. The project's success is a testament to the collective hard work and expertise of everyone involved.

**PROJECT DETAILS:**

- **Project Name:** Airyatri
- **Project Duration:** [18 Jan 2024] to [19 Feb 2024]
- **Key Features Implemented:**

- User Registration and Authentication
- Search and Booking Functionality
- Multiple Payment Options
- Booking Confirmation and E-Tickets
- User Profiles and Preferences
- Flight Operator Management
- Feedback
- **Acknowledgment of Roles:**

- We appreciate the project management team for ensuring seamless coordination and communication.
- Our development team's technical prowess and dedication significantly contributed to the project's success.
- The testing team's meticulous efforts ensured a robust and error-free system.

**Special Thanks:**

We look forward to continuing our collaborative efforts on future projects. Your commitment to excellence has set a high standard for our organization, and we value the positive impact you've made.

Thank you once again for your hard work, dedication, and valuable contributions to the Airline Reservation System Project.

# ABSTRACT

The Airline Reservatioion System serves as a pioneering solution in the ever-evolving landscape of modern transportation. This abstract encapsulates the essence and significance of the project, highlighting its pivotal role in reshaping the dynamics of bus travel by harnessing the power of digital technology.

In response to the escalating demands for convenience and efficiency, the Online Flight Booking System presents a user-centric platform accessible through web browsers and mobile applications. Users benefit from a seamless and intuitive interface that facilitates swift exploration of bus routes, real-time seat availability checks, and secure online reservations.

A robust user authentication mechanism ensures data security and trust, while the integration of dynamic bus layouts empowers travellers with visual seat selection. Multiple payment options, including credit/debit cards, net banking, and mobile wallets, accommodate diverse preferences, ensuring a frictionless booking experience.

For flight operators, the system introduces centralized management tools to efficiently oversee routes, schedules, and services. Real-time tracking features enable operators and passengers alike to monitor flight locations, fostering improved operational efficiency and customer experience. Automated alerts keep users informed about booking confirmations, departure times, and any updates to their journey.

Transparent cancellation policies, coupled with an automated refund process, contribute to user confidence and satisfaction. The project further incorporates a feedback and review system, allowing users to share their experiences and contribute to a dynamic rating system for bus operators, thus fostering continuous improvement.

In conclusion, the Online flight Booking System stands as a transformative force, reshaping traditional bus travel into a seamless, secure, and user-friendly experience. By embracing digital innovation, this project not only addresses the evolving needs of modern travellers but also redefines the standards for efficiency and transparency in the realm of flight traveling.

# INDEX


| | | |
|---|---|---|
| **1.** | **INTRODUCTION** | 1 |
| | 1.1 Introduction | 2 |
| **2.** | **PRODUCT OVERVIEW AND SUMMARY** | |
| | 2.1 Purpose | |
| | 2.2 Scope | |
| | 2.3 User Classes and Characteristics | |
| | 2.4 Design and Implementation Constraints | |
| **3.** | **REQUIREMENTS** | |
| | 3.1 Functional Requirements | |
| | 3.1.1 Use case for Administrator. | |
| | 3.1.2 Use case for Customer. | |
| | 3.2 Non - Functional Requirements | |
| | 3.2.1 Usability Requirement | |
| | 3.2.2 Performance Requirement | |
| | 3.2.3 Reliability Requirement | |
| | 3.2.4 Portability Requirement | |
| | 3.2.5 Security Techniques | |
| **4.** | **PROJECT DESIGN** | |
| | 4.1 Data Model | |
| | 4.1.1 Database Design | |
| | 4.2 Process Model | |
| | 4.2.1 Functional Decomposition Diagram | |
| | 4.2.2 Data Flow Diagram (DFD) | |
| **5.** | **TEST REPORT** | |

| | | |
|---|---|---|
| **6.** | **PROJECT RELATED STATISTICS** | |
| **7.** | **CONCLUSION** | |

# LIST OF TABLES


| Section | Table Title | Page |
|---|---|---|
| 1 | Address | |
| 2 | Feedback | |
| 3 | Flights | |
| 4 | User | |
| 5 | seats | |
| 6 | Payment | |
| 7 | Reservation | |
| 8 | Location | |
| 9 | | |
| 10 | | |


# LIST OF FIGURES


| Section | Figure Title | Page |
|---|---|---|
| 1 | UI | |
| 2 | Database Design | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

# INTRODUCTION

The Online Flight Reservation System project aims to provide a user-friendly platform for booking flight tickets, eliminating the cumbersome manual ticket booking process. This system will introduce innovative features such as saving favorite routes and offering discounts for frequent flyers. Additionally, customers will have the convenience of easily booking, canceling, or rescheduling their flights without much hassle.

In the past, customers had to endure long queues at airports or rely on travel agents to book their flight tickets. This process was time-consuming, prone to errors, and often resulted in inaccuracies in passenger information. To address these issues, we propose the development of an application that enables customers to register, book, cancel, or reschedule flights with ease.

# PRODUCT OVERVIEW AND SUMMARY

**2.1 Purpose:** The purpose of the Airline Booking project is to provide a centralized and user-friendly platform for travellers to efficiently book flight tickets and for Airline operators to manage their services. This digital solution aims to streamline the entire Flight booking process, making it convenient and accessible for users while enhancing operational efficiency for airline service providers.

**2.2 Scope:** The scope of the Airline Booking project encompasses the development and deployment of a comprehensive online platform accessible through web browsers and mobile applications. The system will facilitate users in searching for flight routes, checking seat availability, making secure online reservations, and receiving electronic tickets. Additionally, the project includes features for airline operators to manage routes, schedules, and services efficiently.

**2.3 User Classes and Characteristics:** The project identifies distinct user classes, each with specific characteristics and roles. These include:

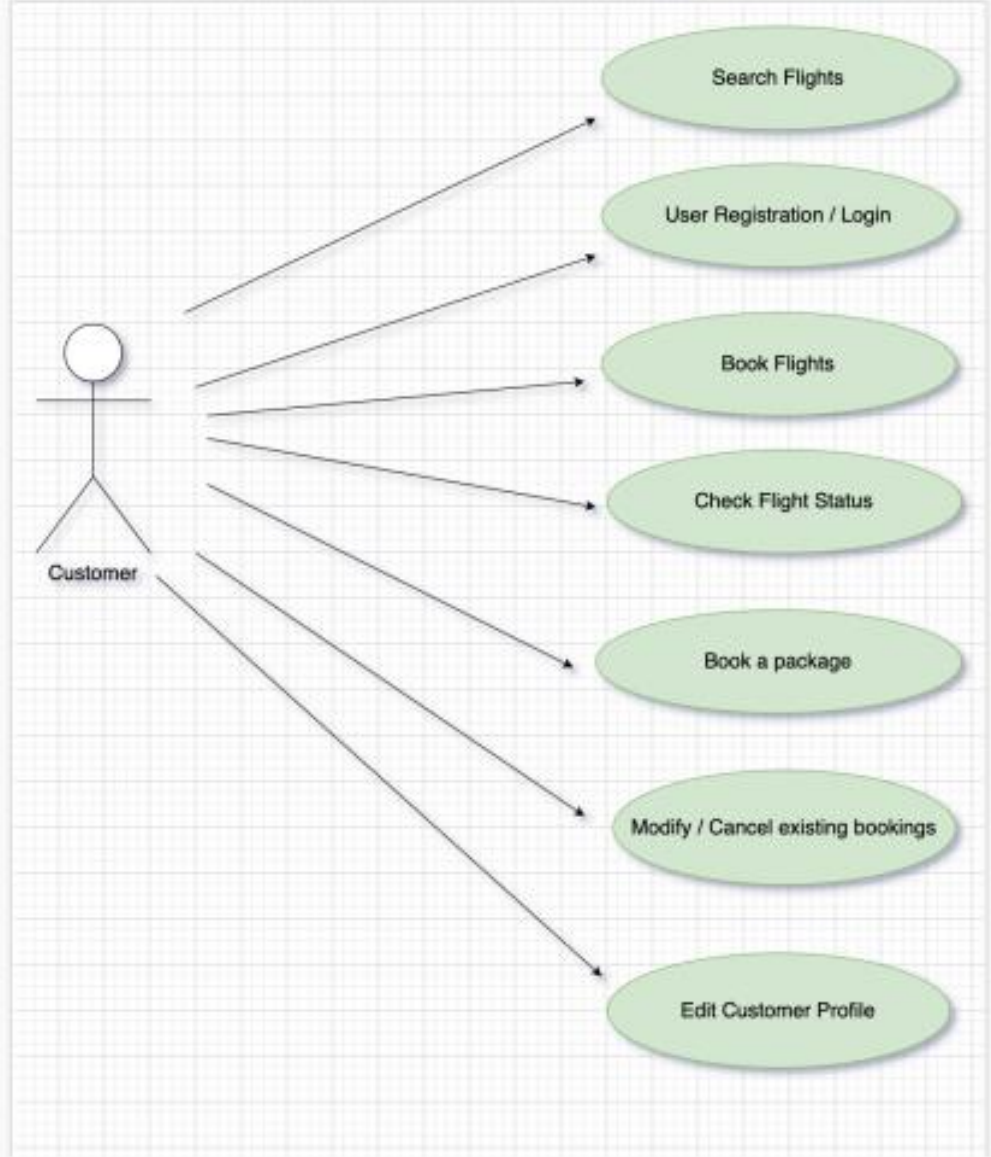
- *Passengers:* Individuals seeking to book flight tickets, with varying levels of technological proficiency.
- *Administrators:* System administrators overseeing the overall functionality, security, and maintenance of the Airline booking system.

**2.4 Design and Implementation Constraints:** Several design and implementation constraints are considered in the development of the Airline Booking project:

- *Technological Compatibility:* The system must be compatible with a variety of devices, browsers, and operating systems to ensure accessibility for a diverse user base.
- *Data Security*: Implementation must adhere to stringent data security standards to protect user information and transaction data.
- *Payment Gateway Integration:* The project relies on external payment gateways, necessitating integration considerations and compliance with their respective APIs.
- *Real-Time Data Synchronization:* The system must efficiently manage and synchronize real-time data, such as seat availability and flight locations, to provide accurate and up-to-date information to users.

These considerations collectively shape the development and implementation strategy for the Airline Booking project, ensuring it meets the needs of users and stakeholders within defined constraints.

# REQUIREMENTS3.1 Functional Requirements



### 2.2.1 Usability requirement

After admin has Login, redirection is given to login page and various options are display to admin such as Trainer and customer details.

### 2.2.2 Economical Feasibility

A project is considered economically feasible when the benefits that will accrue to the broad community are greater than the cost of undertaking the project. Economic feasibility defines all economic aspects related to our project. In economic feasibility we study the project thoroughly and estimate a cost of the project. In this cost we include everything such as salary of employees throughout the project. If we need any specific tool for the project then cost of that tool is also considered. When all the aspects have been studied then estimated cost is discussed with the client, and if client agrees to pay accordingly to our requirement, then the project is said to be economically feasible. My project “Adoption System” is economically feasible as the software which I am using are freely available in the market.

### 2.2.3 Security Technique

The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.

### 2.2.4 Other Requirements:

Hardware Interfaces the SPMS is expected to function on Intel PIII 900 MHz Processor equivalent or above, 128 MB RAM, 20 GB HDD. Software Interfaces The SPMS shall work on MS Windows operating systems family (MS Windows 98, MS Windows NT Workstation, MS Windows 2000, MS Windows XP). It configures to work with Oracle database. This System works on Apache Tomcat server. It uses browser IE 5.0 & above. It uses IIS 5.0 server. constraints

## PASSENGER: -

### FUNCTIONALITY: -

**1.Sign up/Login**
**2.SearchFlights**
**3.Booking Tickets**
**4.Select Seat**
**5.Payment**
**6.Cancel Tickets**
**7.Write Reviews**

### NON-FUNCTIONALITY: -

**1.Confirmation Mail after Sign up**
**2.OTP will be generate while sign up**
**3.Payment Confirmation Message**
**4.Ticket Generation**
**5.Ticket will be sent on Mail**

## ADMIN: -

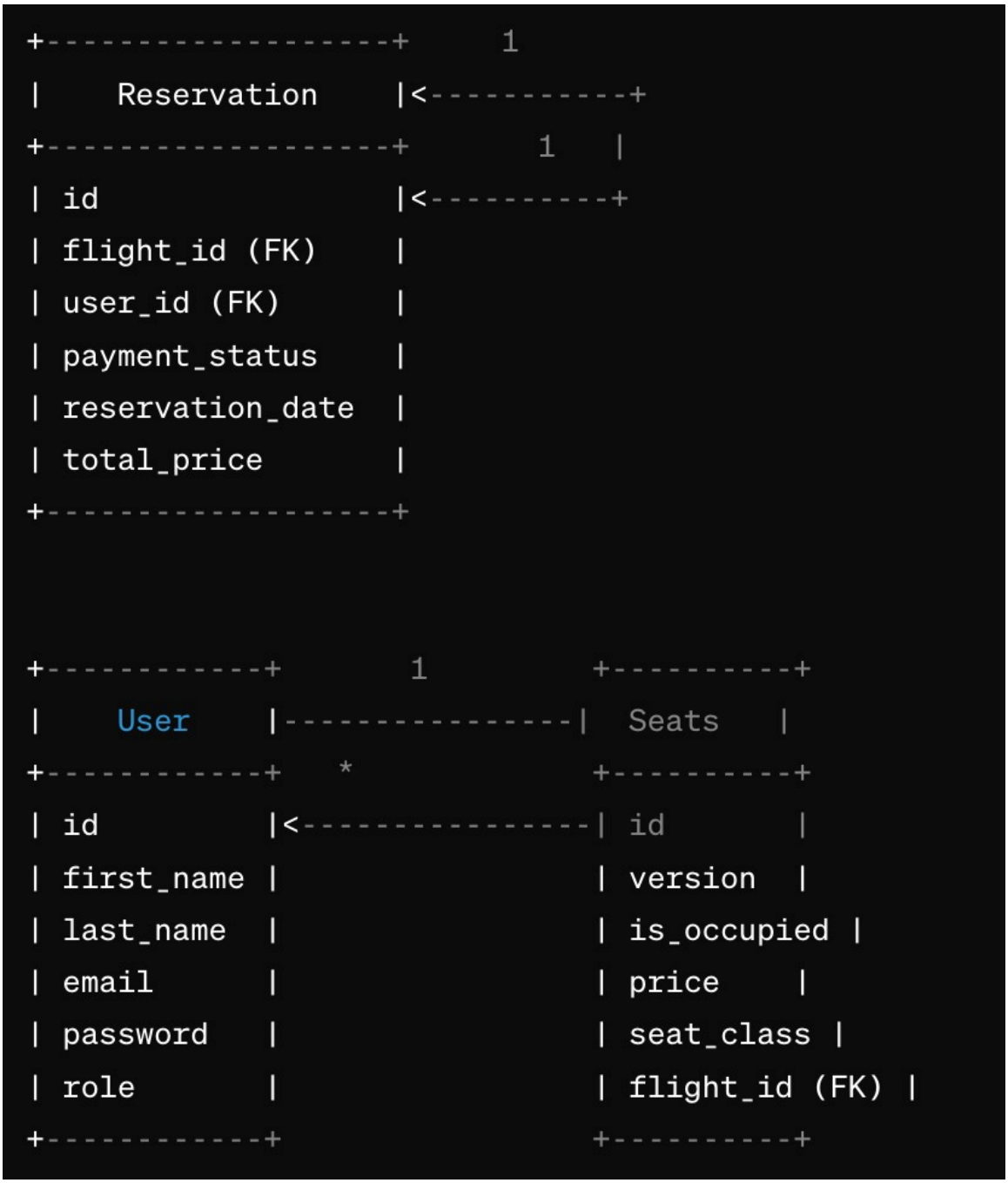
### FUNCTIONALITY: -

**1.Sign up/Login**
**2.Login**
**3.Update Flight Information**
**4.Register Flight**
**6.Delete Flight**
**7.Add Flight**
**8.Update Flight Information**

### NON-FUNCTIONALITY: -

**1.Confirmation Mail after Sign up**
**2.OTP will be generate while sign up**
**3.Generate List of Passenger**


Address
Location
Payment
Flights
id
city
country
pincode
state
user_id (FK)
id
name
flight_id
arrival_time
departure_date
departure_time
no_of_seats
return_date
arr_loc_id (FK)
dept_loc_id (FK)


Reservation
id
flight_id (FK)
user_id (FK)
payment_status
reservation_date
total_price
1
1
1
User
first_name
last_name
email
password
role
*
Seats
id
version
is_occupied
price
seat_class
flight_id (FK)

## PROJECT MANAGEMENT RELATED STATISTICS

The “Airline Management System” is successfully designed and developed to fulfilling the Necessary requirements, as identified in the requirements analysis phase, such as the system is very much user friendly, form level validation and field level validation are performing very efficiently. The old manual system was suffering from a series of drawbacks. The present project has been developed to meet the aspirations indicated in the modern age. The project has been developed in a very short period of time and all efforts have been taken so that this project is very efficient in its execution there still exists some scope of improvement in our project. The following lists some of the enhancement that can be added incorporate into the project. Application of the project can be done more attractively. Database management and all maintenance module can be updated which helps the administrator. More security measures can be taken. There are also few features which can be integrated with this system to make it more flexible. Below list shows the future points to be consider:. • Online payment

# CONCLUSION

The culmination of the Online Flight Reservation project signifies a remarkable advancement in reshaping the air travel landscape, integrating cutting-edge technology with user-centric design to deliver a seamless and efficient booking experience. Through this initiative, we have successfully addressed the evolving needs of modern travelers while streamlining operations for airline service providers.

The success of the project lies in its establishment of a centralized platform that empowers users to effortlessly explore, select, and reserve flight seats in real-time. The intuitive interface, enhanced by features such as visual seat selection and multiple payment options, ensures a user-friendly experience that caters to a diverse audience.

For airline operators, the project introduces a paradigm shift in management by offering centralized tools for overseeing routes, schedules, and services. Real-time tracking not only enhances operational efficiency but also contributes to an improved customer experience by providing accurate flight status and location information.

Our commitment to data security and adherence to industry standards underscores our dedication to safeguarding user information throughout the booking process. Transparent policies for cancellations and automated refund processes contribute to user trust and satisfaction.

The dynamic feedback and review system foster a symbiotic relationship between passengers and airlines, promoting accountability and continuous improvement. This iterative approach ensures that the Online Flight Reservation system remains responsive to user feedback and adaptable to changing preferences and industry trends.

In conclusion, the Online Flight Reservation project stands as a testament to our commitment to excellence and innovation in the aviation industry. By harnessing the power of technology, we have not only met but exceeded the expectations of users and stakeholders. As we move forward, we anticipate further enhancements and refinements, ensuring that the project continues to set industry standards and elevates the air travel experience for all.