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**CIS 634 – OBJECT ORIENTED SOFTWARE ENGINEERING**

AIRLINES DATABASE MANAGEMENT SYSTEM USER MANUAL  
Version 1.0

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**Contents**

[**1: Introduction 3**](#_bookmark0)

[**2: Terminology 3**](#_bookmark1)

[**3: Pages 4**](#_bookmark2)

* 1. **Home page…………………………………………………………………………………...4**
  2. **Admin Pages…………………………………………………………………………………5**
     1. **Login Page………………………………………………………………………………5**
     2. **Flight List View…………………………………………………………………………6**
     3. **Creation of Flights………………………………………………………………………6**
     4. **Modification of Flights………………………………………………………………….7**
     5. **Deletion of Flights………………………………………………………………………9**
  3. **User Pages……………………………………………………………………………………9**
     1. **Home Page………………………………………………………………………………9**
     2. **Flight View…………………………………………………………………………….10**
     3. **Login Page……………………………………………………………………………...11**
     4. **Payment Portal………………………………………………………………………....12**

**4.0 Conclusion………………………………………………………………………………...15**

# 1. Introduction

Let’s get ready to gear ourselves to a new journey with the airlines database management system! The system is designed to make your travel as smooth as possible. First, the system allows the administrator to add new flights, edit the flight information and delete the flight record if not needed. They can also manage user details in the database. Second, the users can check the flight and airline details which shows the flight number, airline name, the route the flight is travelling as per the preference of the users, airport details, arrival and departure time and price of the travel. Third, once the user books a flight as per his/her needs, they can then proceed to the payment portal and get their booking confirmed. Finally, the database allows the users to view all the flights details from a guest point of view where they are booking the ticket for another person wherein which they need not have to create and account and as a main user where they need to get an account created for themselves. The database is built to make the navigation of the airline portal and the booking for the customers a user-friendly experience. With that said, let’s begin!

# 2. Terminology

This section covers the terminology that you may encounter while using airline database management system. If at any time you are using the system and become confused as to what something means, you can find it explained here:

* **Administrator:** An administrator is responsible for creating and managing both users and flight details such as addition of flights, updating the flight records and deletion of the flight. Only the admins have access to make these changes and have a separate login portal.
* **User:** Users have access to view flight information, airline details, list of airports, the routes a flight is taking, arrival and departure details, booking and payment portal. Based upon the itinerary the user chooses, the flight details shall be customized accordingly and displayed. Based upon the user’s needs, he/she can book the flight of his/her preference. The user then proceeds to book the flight he wishes to travel which then takes them to the payment portal where the booking is finalized.
* **Flights:** The flight records display all the flight details such the flight number, the airline under which the flight operates, the route the flight is travelling, the arrival and departure timings of the flights.
* Airline: The airline simply gives the company of the airline under which the flights are operating. This information provides the airline name and model.
* **Routes:** The route record provides the route information the flight is taking. It provides the names of source and destination cities. The data such as flights travelling in a particular route will be filtered as per the user’s choice of preference.
* **Book:** Once the user decides the flight details, he/she proceeds with the booking process by clicking on the ‘Book’ button. Once the user clicks on this button, it directs them to the login page where the user must register himself to complete the booking process or can login as a guest if he/she is booking the airline ticket for a third-party.
* **Payment portal:** After the user proceeds to book the flight as per his/her travel needs, the page gets directed to the payment portal where the user is asked to pay for his/her travel. The payment option is only via card where the user must enter the card details and must complete the booking process and have it finalized.
* **Booking confirmation:** A message shall be displayed on the screen once the booking is completed stating the details of the user’s booking such as the flight number, time of arrival and departure, route of the journey and the booking ID.

# 3. Pages

Airline database management system is a web-based platform. There is a consistent look and feel across the entire airline database website to ensure that you do not become confused while using the system.

# . Home Page

This is the first page you will see when visiting the airlines database web site. This page allows the users to enter their source and destination cities with the date of their preference. It also gives an option to select if the user is willing to choose one way or a round trip with the ‘Return Flight’ check box operation. Filling up all the fields are mandatory, and a mandatory check has been built in which does not allow the user to proceed ahead without filling out all the details.

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# : Admin Pages

These pages are unique to the Administrator role. They are not accessible by anyone who is not an Administrator.

## : Login Page

This page is meant for an Administrator and the operations of this is restricted only to an admin and nobody else. The Administrator initially sets up the account by entering the details such as Name and email address and sets up a password. After setting up, the admin only needs to login using the email address and password at every login session page.

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## : Flight list view

## Once the admin logs into the system, a list of flights already existing in the database shall be displayed. Flight number, Flight name and email address of the flight shall be displayed along with options in the form of buttons to edit the flight, create a flight and delete the flight.

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## :Creation of flights

This page is used by administrators to add any new flights. He/she has the authority to bring in new flight into the database with the flight details such as airline name and airline contact information provided with the email address for the ease of the passenger. A ‘Create’ button has been added in the webpage for the admin to add new flight details. Once the new record is added, the user shall be able to view them along with the other flights from their end and manage their booking accordingly. A message shall be popped up saying ‘Airline saved successfully’ once the flight details have been saved.

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**3.2.4: Modification of flights**

This page is used by the admins to modify flight details. If there are any changes to the flight, an ‘Edit’ button is provided to update the flight details. The admin after modifying the details, saves the web page for the user to view it from their end. Nobody else but for the admins has the operational power to make these changes. A message shall be popped up saying ‘Airline updated successfully’ once the flight details have been updated and saved.

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**3.2.5: Deletion of flights**

## This page allows the admin to delete or remove a flight from the database if it is no longer in operation. The entire flight record shall be removed from the database. A ‘Delete’ button is provided in the webpage for the admin to perform this operation. Once the admin saves the deletion operation and exits, the user shall no longer be able to view the flight’s record from their for any further bookings unless and otherwise it has been added again.

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# : User Pages

These pages are unique to the user role. The user has different operations than that of an admin.

## : Home page

This page allows a user to enter the source and destination, choose the date for the flight travel, and choose a return flight if the journey is a round trip. Fields like source, destination, date of departure and arrival are mandatory fields which the user must fill in before proceeding to the next step.

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**3.3.2: Flight view**

This page provides a list of all the flights as per the source and destination, date of travel selected by the user. The page provides the flight details such airline name, flight number, model name and a button ‘Book’ to confirm the flight booking. The user can then select a flight as per his/her convenience and click on the ‘Book’ button.

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**3.3.3: Login Page**

Once the user selects the flight of his/her choice, it takes them to the login page where the user must register himself by selecting ‘Register’ option in the top right corner of the webpage as an account holder. The two scenarios we have given in our database are: Firstly, if the user is booking the flight ticket for himself, he must proceed to account creation for his details to get stored in the database. Filling out all the fields are mandatory and a mandatory check has been built for all the fields without which the user cannot proceed further.

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If a user is a guest user, meaning if the user is booking the flight ticket for a third party, then there is an option as Guest Login which can be clicked and there is no necessity of creating an account of such users.

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Once the user’s details are in the system, he/she can simply enter their email address and password and hit ‘Login’ and it will take them to the next set of webpages to proceed with the booking process.

**3.3.4: Payment Portal**

After the user has successfully logged into the system, the user needs to pay for the booking he has selected. The user must firstly fill in the details of himself and the details of co-passengers if travelling with him. Details such as Name, Email address, Phone, Address, and mode of payment shall be viewed and filling out all these fields and mandatory. Once the user provides all the required information, he clicks on ‘Continue to Payment’ button.

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Another webpage is displayed which takes the user to fill in the card details such as card number, Name, Valid Till and cvv/pin. Yet again, all these fields are mandatory for a successful booking.

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Once the payment is through, a new message on the webpage will be displayed which shows that ‘Thank you for booking with us’ which is a confirmation message for the user that their airline ticket booking has been successfully done.

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# 4. Conclusion

Hope the contents provided in this user manual was clear and understandable. We have tried to be as thorough as possible with this manual under rigid time constraints. Please be aware that this manual is for version 1.0 of the Airline database management system. If you encounter any issues with this manual, or have any suggestions or improvements, please visit [Give](https://github.com/gollum18/CourseRegistrationPOC%20) our github link and open an issue by clicking on the ‘Issues’ tab, and then the green ‘New issue’ button.