Airline Management System

Diploma in Software Engineering

EAD Project Documentation

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1. Project Description

The Airline Management System is a desktop-based application suitable for managing customer details, bookings of tickets and relevant flight information of an airline operational unit. It is designed to improve the operational effectiveness of airlines regarding reservation of services, flight timings, and customer information. It is meant for administrative staff to complete the booking and management functions to enhance the quality-of-service delivery and the satisfaction of the customers.

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EAD ZIP file link

2.Project Objectives

Manage Customer Information:

Authority lets users update and administer the customer record effortlessly and efficiently to achieve an informed record.

Ticket Reservation:

Facilitating ways through which the user can easily book tickets for flights, and select the best option suited for them.

Reduce Administrative Workload:

Prescribe electronic flights to avoid many inconveniences that result from the manual reservation of flight booking to reduce the workload on most of the airline employees.

Efficient Resource Allocation:

Enhance the efficiency of airlines resource by enabling staff to effectively determine the flight schedule and vacancies on the seats.

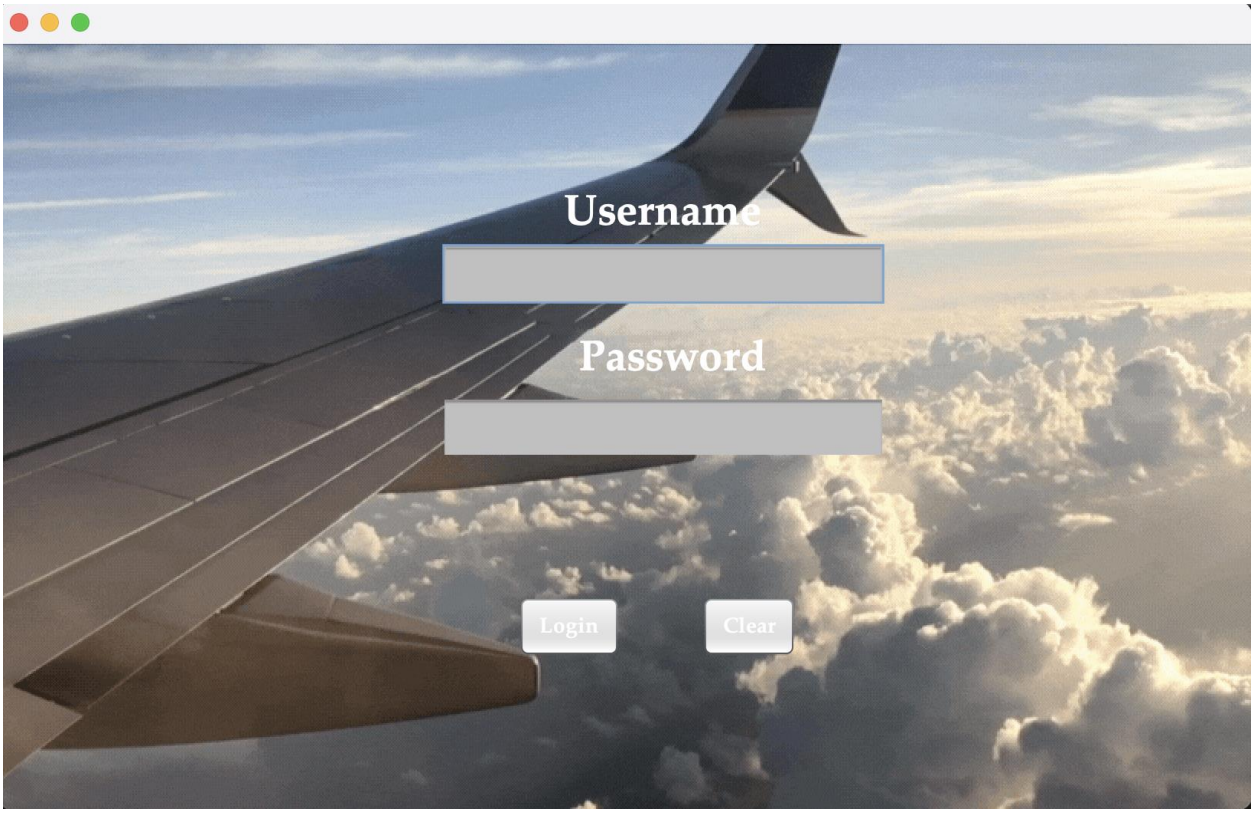
Real-Time Availability:

They must ensure that flight availability information is as real-time as possible so as to ease customers' decisions on whether to take the flights.

3.Features and Forms

In Airline Management System few features/forms needed to manage flight reservation, customer details, flight schedule etc. Here are some of the key features and the corresponding forms or interfaces required to implement them: Here are some of the key features and the corresponding forms or interfaces required to implement them:

Login Form



Dashboard Form

Provides a user-friendly interface including all the services of the application.

1.Customer detail management

2.Ticket booking management

3.Flight details management

4.Shows number of flights running on the current day

5.Log out

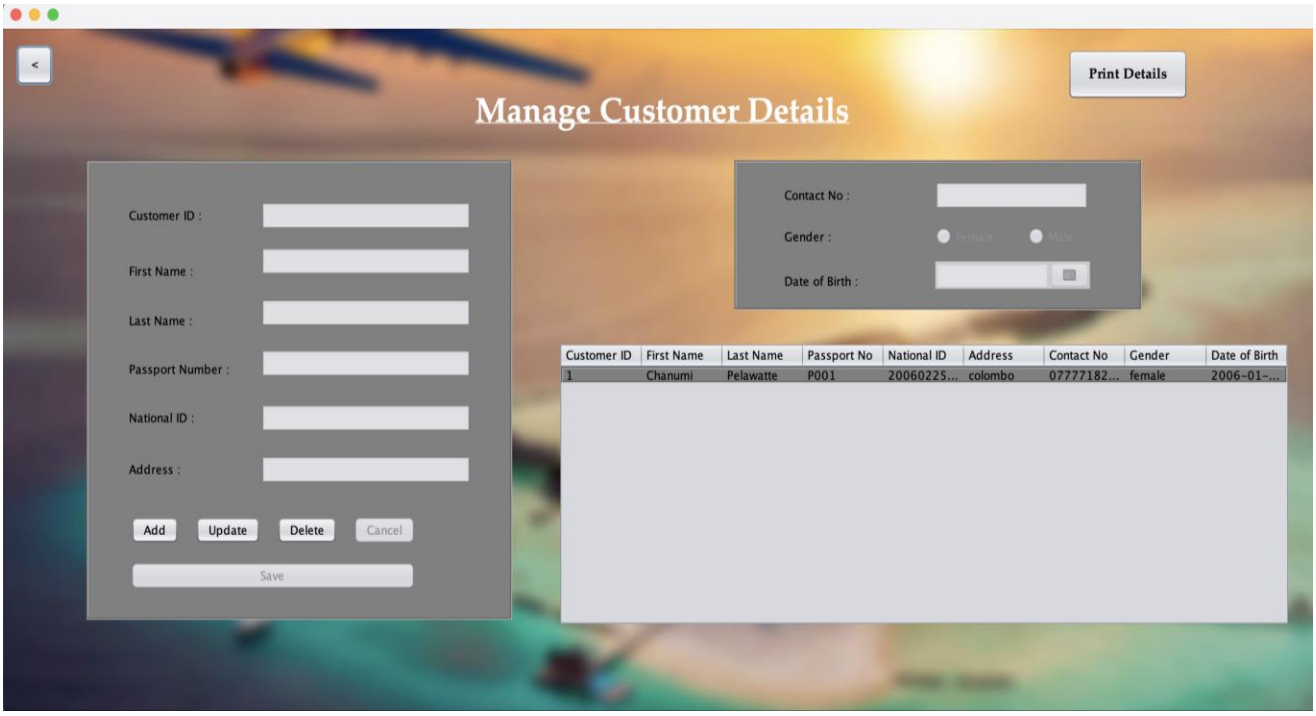
Manage Customer Details Form

Provides an interface to register new flights by entering details such as customer ID, name, passport no, national id number, etc.

Shall be able to update customer details.

Shall be able to customer details.

Shall be able to view the existing customer details.



Manage Ticket Form

Provides an interface to book new ticket details by entering information such as ticket ID, customer name, flight number, and seat allocation.

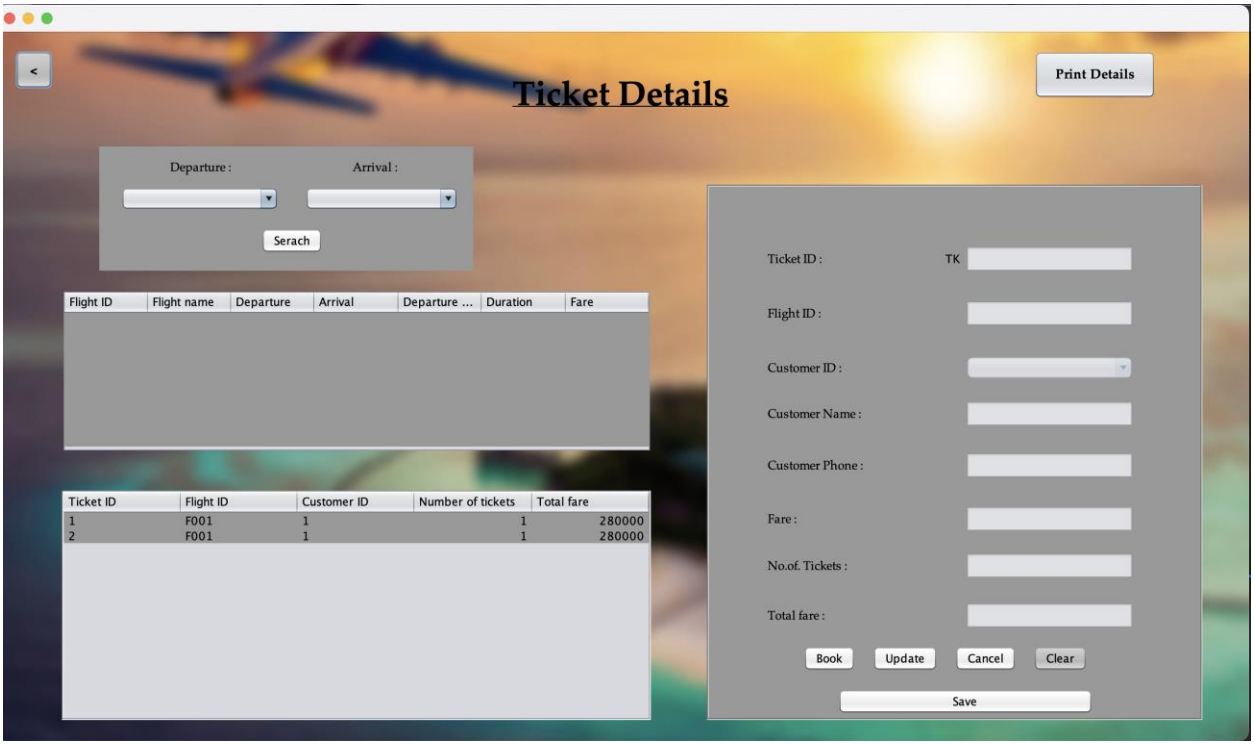
Shall be able to update ticket details.

Shall be able to delete tickets.

View the flight details for the searched Departure and arrival destinations.

Shall be able to print the ticket details of the current bookings.

Has reference to the customer and flight detail tables as well.

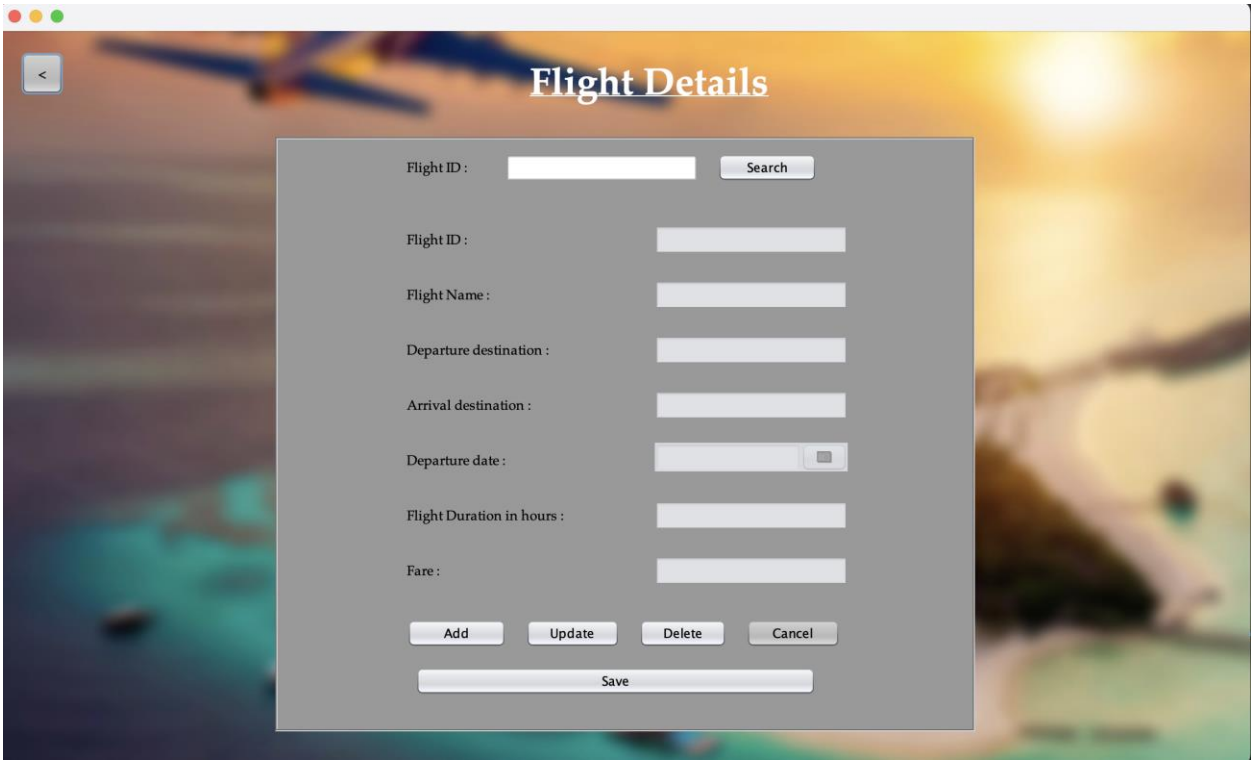


Manage Flight Details Form

Incorporates registration of new flights by inputting the flight number, airline, destination, date and time of the flight and number of seats available in the flight.

Shall be able to change flight details.

Shall be able to delete flights.



Customer Details Report (Be able to get all the customer details)

Ticket Booking Details Invoice

Be able to print a ticket booking invoice with flight details and customer details.

Airplane Management System

Ticket

Thursday 15 August

TK 1

firstname	Chanumi
contact	0777718290
passport_	P001
address	colombo

flight_name	departure	arrival	departureDate	number_of_tickets	total_fare
Sri lankan Airline	Sri Lanka	Australia	8/10/24, 12:00AM	1	280000

4.Technology Stack

Programming language: Java with the MVC technology

UI framework: Java swing, Jasper Report and iReports

Database: MySQL server

5.Conclusion

To summarize, an Airline Management System is a must have tool to enhance airlines services delivery and customers satisfaction. It involves the organization of flight bookings and customers, flight details and working schedules; its advantages are the efficiency, effectiveness, and effectiveness that it brings to all areas of operation. Some useful features are Ticket booking, availability updates in real-time, and handling user data. To meet these goals the system must allow easy-to-use forms and interfaces for the administrative staff.

In following the inception of such a system several benefits that include decreased cost, reduction in the amount of paperwork and last but not the least the improvement in the quality of services is expected to be observed. In this respect, the focus should be made on data protection and compliance with specific regulations to maintain customers' data privacy. Finally, efficient Airline Management System is beneficial to airlines, and improvements their comprehensive performance and enhances customers' satisfaction regarding service timeliness and quality as well as reducing the complexity of managerial tasks related to flights management.