Airline Reservation System

Project Advisor

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Submitted by

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Abstract

Currently, Airline Reservation System is highly manual and involves a lot of paperwork and calculation and therefore may be erroneous.

Our system will help traveling agents search from the pick-up location to the destination and filter out the flight details with timing, fares, and available seats. After entering all the required details of the customer, it asks you to choose a flight with a preferred time slot, and book the ticket.

Introduction

Airline Reservation Systems are systems that allow an airline to sell its inventory. Airline Reservation System is the way to the modern, scalable, and robust architecture of reserving a flight. The most dominant issue that an airline face is the pressure of cost-cutting which slows down the entire growth of the airline industry. The success of the airline depends on two factors, one is the travelers and the second is the technology used to book a flight.

The Airline Reservation System was one of the earliest changes to improve efficiency. Airline Reservations eventually evolved into the Computer Reservations System. A computer Reservation System is used for the reservations of a particular airline and interfaces which support travel agencies in making reservations for most major airlines in a single system. Airline Reservations System contains airline schedules, fare tariffs, passenger reservations, and ticket records.

Vision

Our vision is to facilitate traveling agents with a computerized reservation system. This system will manage the details of Airline Tickets, Flights, Customers, Booking Counter, and Venders.

Scope

Our system is made on the administrative end so travel agents can use the system. The core functionalities of this system are adding customers, adding a flight, booking the ticket, canceling the ticket, changing the flight details, view the passengers' list and flights list.

Problem Statement

Developing an Airline Reservation system that automates its flight operation. We have a traveling agent. He/She deals with customers and provides them with flight and ticket details.

We will develop a system that will allow the traveling agents to do the following operations;

- Add passengers
- View flight schedule
- View Passengers' detail
- Reserve the Ticket
- Cancel the Ticket

Requirements

Functional Requirements

Functional requirements are the vital capability that each framework ought to have in different shapes. Able to describe functional necessities as the behavior of the framework because it interfaces to the system's usefulness.

- User (Traveling agent) should be able to log in to the system.
- User should be able to add customers.
- User should be able to book the ticket.
- User should be able to cancel the ticket.
- User should be able to view all flights.
- User should be able to view all Passengers.

Non-Functional Requirements

The capabilities that are not associated with the software's utilitarian requirements are called non-functional prerequisites.

- **Security:**

Our system must keep up its security by keeping the data of passengers and flights safe and secure.

- **Maintainability:**

Our system must be able to resolve the issues and correct all the problems related to them.

- **Usability:**

The system must be proficient to utilize. It must be basic to get the buttons and headings.

- **Reliability:**

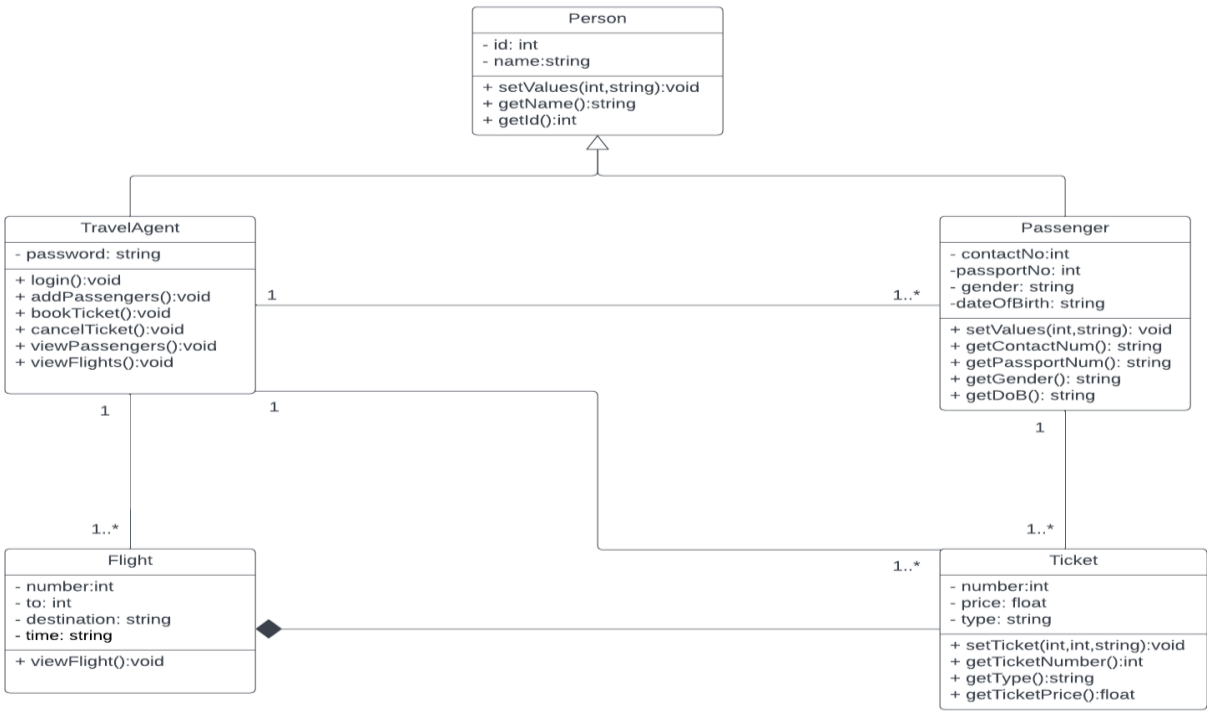
The computer program must work without disappointment for the given time. To degree program unwavering quality, you will be able to check the programs that are completed accurately.

- **Performance:**

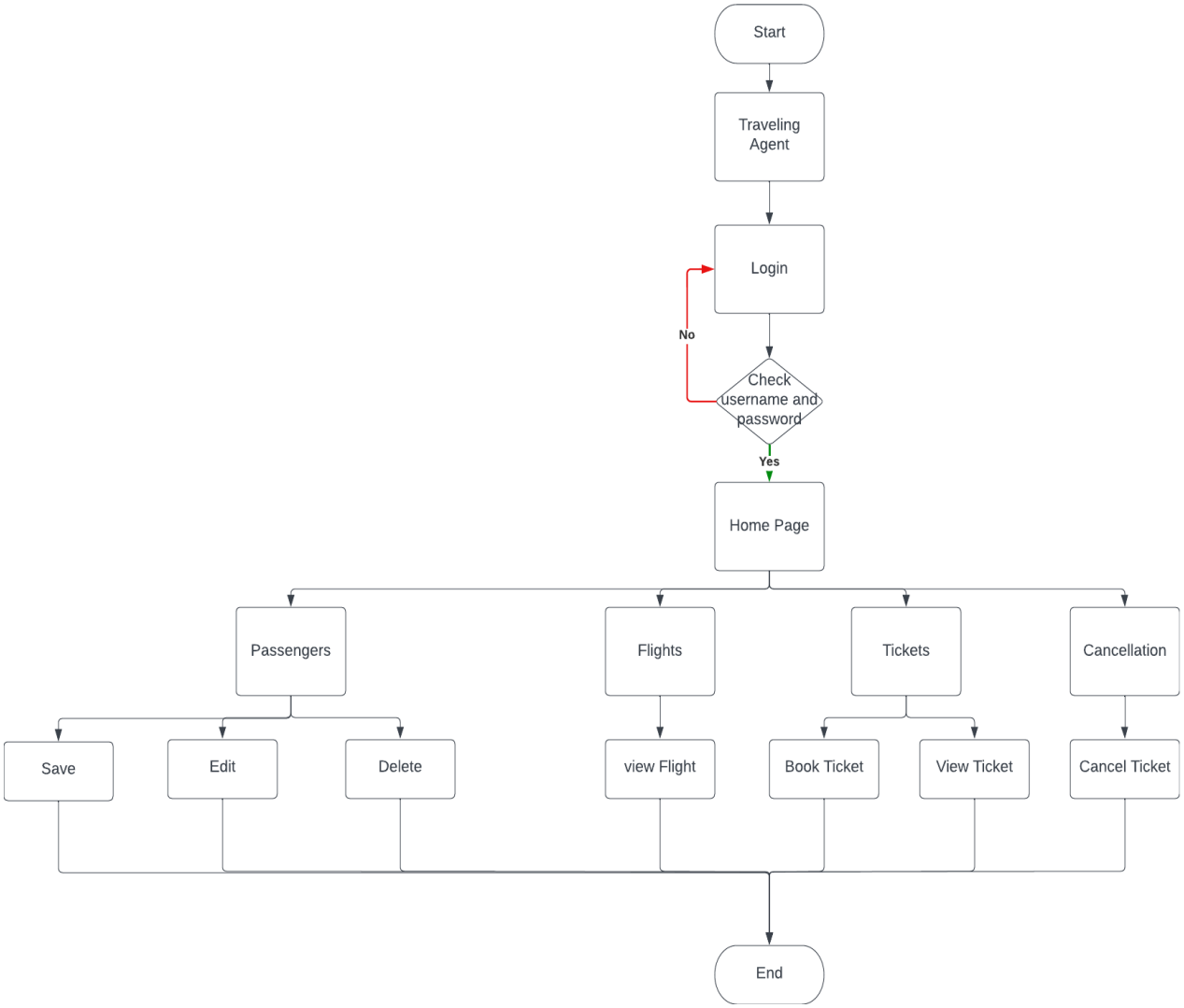
It must depict the performance of the computer program and the responsiveness of the framework. It must threaten the framework in case of overloading.

Design

Class Diagram

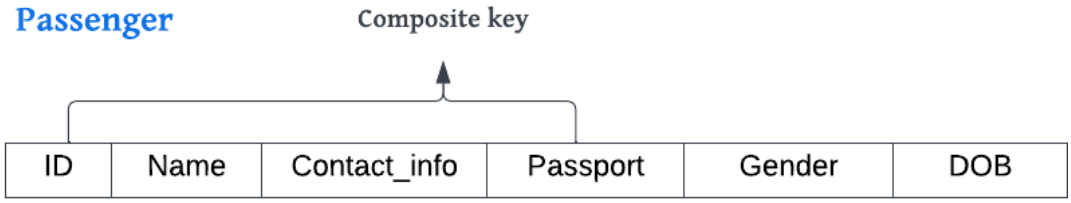


Flow Diagram

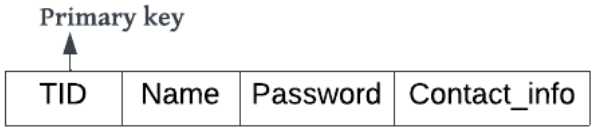


3 NF Normalization

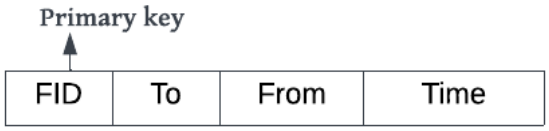
Passenger



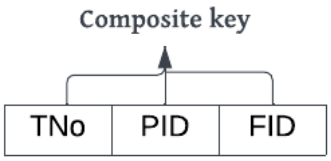
Travelling Agent



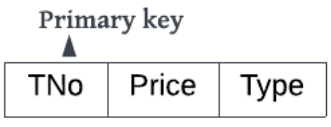
Flight



Ticket Reserved



Ticket



List of Functional Dependencies

1. Passenger Table

   In this table, if we know the value of ID and passport, we can find out the Name, contact, gender, and DOB of the passenger.

   Thus, we can say that Name, contact, gender, and DOB are functionally dependent on **ID and passport**.

2. Travelling Agent

   The name, Password, and Contact Information of the traveling agent can be found if we know the value of **TID**.

3. Flight

   If we know the value of **FID**, then we can know the flight arrival, departure, and time.

4. Ticket Reserved

   TNo, FID, and PID will act as **composite keys** as these will help to find out the specific ticket number of specific flight holds by the passenger.

5. Ticket

   If we know the value of TNo, then we can know the price and type of the ticket.

Related Work

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You will be able to search for more than 400 IATA airlines' availability and 20,000 flight connections in less than 3 seconds.

JAZAK ALLAH!!!