Data Structure & Algorithms

Project Proposal

Airline Reservation System (ARS)

Group Members:

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Aim of the project:

The aim of Airline Reservation system is to make the process of reservation and ticketing system online that will be able to solve the issues in the existing system.

Problem Statement:

The old system of Airline Reservation system was manual or documented or not fully online. There were many problems regarding some categories such as Accuracy, Usability, Effectiveness, Efficiency, Speed etc.

Limitations of Existing System:

- Time consuming
- Manual work (Manually goes to the airport and book the ticket)
- Downloading the ticket in documented form to fill the requirements and then submitting to the Airport.
- Possibility of losing data
- Lack of security
- Difficulties in maintain records

Project Introduction:

This project (ARS) encourages the reservation of online air tickets for an ordinary passenger intending to travel in airways as it holds flight plans, traveler reservations and ticket records. It saves time and efforts.

Admin is the main authority who can do expansion, cancellation and change of flights if required.

Project Description:

The primary motivation behind this Airline Reservation System is to lessen the manual mistake associated with the Airline Reservation process and make it convenient for the client to use for various purposes.

For example, viewing different flights available with different timings for a specific date and to book a ticket, change or drop a specific reservation.

It guarantees the opportunities for users, where client at his own system can login on to this software after giving some details on registration form.
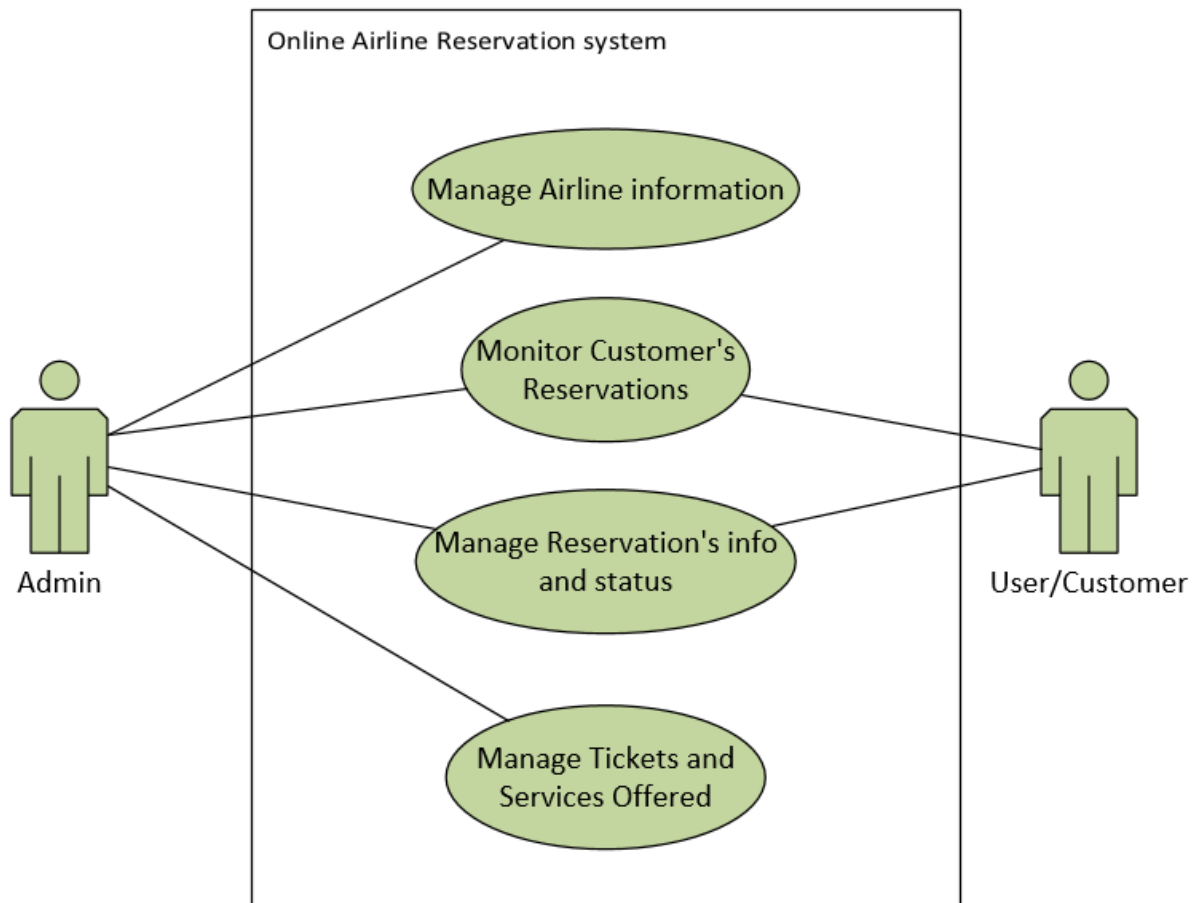
Admin manage and update the system with latest information about flights and seat availability and timings etc.

Specific objectives:

- To save time and accuracy in work
- To make system simple and easy to manage
- To provide a large number of ticket reservation and cancellation service in a small time.
- To guarantee that ticket reservation is simple, easy and user friendly use for clients.
- To keep the information from unauthorized user

Use Case Diagram:

For better understanding of the basic functionality of this system

Technologies used in the project:

This whole project is based on C++ programming language.

We will use basic concepts of OOP such as classes, Inheritance, Polymorphism as well as the concepts of Data structure and algorithms (DSA) such as Circular doubly linked list,etc.