

1 Introduction

2 Description

You will design a system for flight reservations of an airplane company. There are planes, cities, airports, flights, crew, customers, sales/reservations, staff, etc. You should consider flight history of customers to give promotions, connecting flights, cancelled flights and different classes within a flight (business, economy). Customers also should be able to cancel their flights but they must be penalized. Reservations done by customers have to be cancelled after a certain time. Moreover, customers should be provided to buy extra luggage with additional fee.

3 Why and How a Databases is going to be used as a part of to that project?

-> Furkan

4 Requirements

4.1 Functional Requirements

4.1.1 Customers

- Customers can view scheduled flights with information of price, promotion, sales, connection details and duration.
- Customers can view prices of desired flights and get promotions and sales
- Customers can make reservations for available flights and cancel existing ones.
- Customers can make payments of desired and available flights.
- Customers can return their purchased tickets with a penalty with respect to ticket type and remaining time to the flight.
- Customers can choose seat, class, meal for their purchased tickets.
- Customers can buy extra luggage for their purchased tickets.
- Customers can cancel the extra luggage they bought before 24 hours from the flight.
- Customers can view the current status of the flights that they have purchased a ticket for.

4.1.2 Manager

- Managers can register new planes to system, and delete the existing ones.
 - Managers can send planes for repairing and assign the returning ones as available.
 - Managers can hire and fire stuff such as pilots, hostesses, ground team etc.
 - Managers can add airports.
 - Managers can add routes between two existing airports and delete the existing ones.
 - Managers can delete airports if there is no route assigned to them.
 - Managers can create flights; change and cancel existing ones.
 - Managers can set prices of current flights.
 - Managers can apply promotions or sales to current flights or change/delete the current ones.
 - Managers can create crews from existing and unassigned stuff.
 - Managers can assign crews to scheduled flights if available or remove the current assignments.
 - Managers can view current reservations and purchased tickets for flights.
 - Managers can view the current status of the flights.
- **Cancel reservations Make reservations Sell extra luggage Cancel extra luggage Penalize customers (Bunlar bu adamın işi değil)**

4.1.3 Salesperson

- Salespersons can view scheduled flights with information of price, promotion, sales, connection details and duration.
 - Salespersons can sell tickets and choose class, seat, and meal for purchased tickets.
 - Salespersons can cancel reservations.
 - Salespersons can take back the purchased tickets and refund them with a penalty with respect to ticket type and remaining time to the flight.
 - Salespersons can sell or cancel extra luggage.
 - Salespersons can view current reservations and purchased tickets for flights.
 - Salespersons can view the current status of the flights.
- **Cancel reservations, (gereksiz) Make reservations, (gereksiz)**

4.1.4 Ticketing / Gate Agents

- Ticketing / Gate Agents can register the luggage.
- Ticketing / Gate Agents can cancel reservations.
- Ticketing / Gate Agents can assign seats for not checked in tickets.
- Ticketing / Gate Agents can view current reservations and purchased tickets for flights.
- Ticketing / Gate Agents can view the current status of the flights.

4.2 Non-Functional

- Accurate and quick (response time will be less than 1 sec.)
- Does not overwrite the data
- Secure
- User friendly
- Scalable
- No data loss

4.3 Pseudo

- **MySQL**** will be used
- Web site can be created with HTML, JavaScript, CSS, HTML 5, Php technologies. (Angular JS, Bootstrap)

4.4 Limitations

- The plane type will be determined according to the flight time.
- An airport will be added after a city is added.
- A route can be added after an airport is added.
- A route cannot be deleted if there is a flight
- An airport cannot be deleted if there is a route.