# Introduction

# 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.

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

-> Furkan

# Requirements

## Functional Requirements

### 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.

### 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 )**

### 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)**

### 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.

## 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**

## Pseudo

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

## 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.**