**Problem description**

**Online Flight Booking system**

This online booking system allows potential customers to book and pay for a flight ticket directly through the website. That means that all stages of booking, from choosing a destination to paying for the reservation, are handled online that significantly reduces the staff workload and eliminates double-bookings. User can reserve maximal one flight in a specific time.

This Online ticket reservation application will maintain flight details, flight status, reservation, cancellation process. The flight status which maintain flight ID, flight name, arrival time, departure time, name of the airline, and also it contains details about the seats such business class seats, economic class seats, travel charge, passport number, date of travel are reserved.

**User Roles**

* **Users** have basic permissions in the ticket booking system, can search the desired destination, choose a seat and make a payment in one click.
* **Agents** are users who can manage the functionality and have access to all features within the system.
* **The administrator** is able to manage every aspect of the system, has visibility to all features and changes system settings.

Customers can register at the online flight booking system to book flight. Customer can get different type of discount based on their status.

| Customer status | Tier Points | Discount per flight (%) |
| --- | --- | --- |
| Gold | 1500 | 15% |
| Silver | 600 | 6% |
| Bronze | 300 | 3% |

Customers can register online and pay in two different ways: a. credit card b. bank transfer If the customers pays with credit card, the system will use an external system called Epay.com. Epay.com is a system that can be called through web services and offers the following services:

1. validate credit cards
2. handle the credit card payment

If Epay.com is not available, then we don’t accept register that are paid with credit card. If the customer wants to pay with a bank transfer, the system will collect the bank information from the customer, and flight Agents will perform the actual bank transfer with the online bank application of their local bank. If the bank transfer succeeded, the employee will record this in the flight booking system. After successfully ordering a subscription, the customer will receive the account login information by email.

The system offers the following Sort and Filter functionality to find a flight based on your specific needs and requirements.

* Lowest and highest price;
* shortest, longest, earliest and latest departure;
* earliest and latest arrival;
* number of stops;
* airlines;

The system will have the following requirements

* The system needs to store information about new flight
* The system need to keep the record of the booking information
* System need to record customers information
* System need to record destination and route
* The system should notify user a day before the flight date

Every flight will have a unique flight number. Whenever a user book a flight the number of available sites will be modified until it run out of set the flight no linger will be available for booking. The system can show for every customer to see which flight they already booked. And which flight they had previously. The system offers the following reporting functionality.

1. The top x(x is a variable) most visited destination
2. The top x(x is a variable) most used airlines
3. The top less visited destination
4. The top less used airline.

At the online flight booking website, we have a CRM system where we store all relevant information from customers. When a customer register to the system, we want to add the customer information in our CRM system, so we can use that information for advertising purposes.