

Use Cases

He Tu & Xiangjia Lei

May 11, 2025

1 Customer

1.1 View Flights

The customer can view their purchased flights. By default, only upcoming flights are shown, but they have the option to view past flights as well. Each entry displays the flight number, airline, departure and arrival times, and ticket status.

1.2 Purchase and Search for Tickets

The customer can search for available flights using criteria such as departure city, arrival city, airport, and date. Once a flight is selected, the customer can purchase a ticket, provided they have sufficient balance and seats are available.

1.3 Track Spending

The customer can view their total spending over the past year and see a detailed breakdown of monthly spending in the last six months through bar and pie charts. There is also an option to specify a custom date range.

1.4 Logout

The customer can log out of their session securely, which clears all session data and redirects to the login page.

2 Booking Agent

2.1 View Flights

The booking agent can view all flights booked through their agent ID. Flights can be filtered by date, flight number, status (upcoming or delayed), and departure/arrival locations.

2.2 Purchase Tickets

The booking agent can purchase a flight ticket on behalf of a customer, provided the customer has sufficient balance and available seats. The agent earns a commission for each ticket sold.

2.3 Search for Flights

The agent can search for flights operated by airlines they are authorized to represent. Filters include departure/arrival city, airport, and date.

2.4 View Commission

The agent can view their total commission earned, average commission per ticket, and number of tickets sold in a specified time period.

2.5 View Top Customers

The agent can view the top customers they have served, ranked either by number of tickets purchased in the last 6 months or by total commission generated in the past year.

2.6 Logout

The agent can log out and securely end their session, which clears session data.

3 Airline Staff

3.1 View Flights

The staff can view all flights operated by their airline, with options to filter by time range (upcoming, past, current), departure/arrival airport, and date.

3.2 Create New Flights

Authorized staff members can create new flights by specifying flight number, departure and arrival airports, times, airplane ID, and price.

3.3 Change Flight Status

Operators can change the status of existing flights (e.g., from “Upcoming” to “Delayed” or “In Progress”).

3.4 Add New Airplane

Admins can add a new airplane to the airline’s fleet by providing the airplane ID and number of seats.

3.5 Add New Airport

Admins can add a new airport to the system by specifying its name and city.

3.6 View Top Booking Agent

The staff can view the top-performing booking agents over the past month and year, based on number of tickets sold and total commission earned.

3.7 View Frequent Customer

The staff can identify the most frequent customers (based on flights taken with the airline) in the past year.

3.8 View Reports

The staff can view sales reports over the past month, year, and custom date ranges. These reports include ticket sales counts and trend graphs.

3.9 Revenue Comparison

Staff can compare the revenue from customers who booked directly versus those who booked through agents, both for the past month and past year.

3.10 View Top Destination

The staff can view the top 3 arrival destinations (airports and cities) for the past 3 months and past year, based on customer volume.

3.11 Grant New Permission

Admins can grant “Admin” or “Operator” roles to other airline staff members in the same airline.

3.12 Add New Booking Agent

Admins can associate existing booking agents with their airline, allowing the agent to sell the airline’s flights.

3.13 Logout

The staff member can log out of the system, ending the current session securely.