**Requirements Document for Airline Ticket Booking System**

**1. Introduction**

The Airline Ticket Booking System is a web application that allows users to search for flights, book tickets, and manage their reservations. The system will provide an intuitive user interface and an efficient backend to handle flight data and user transactions.

**2. Objectives**

* To provide a user-friendly interface for searching and booking flights.
* To manage flight details and user bookings effectively.
* To implement secure payment processing for ticket purchases.

**3. Functional Requirements**

**3.1 User Registration and Login**

* Users must be able to register an account using an email address and password.
* Users can log in to their accounts using their registered email and password.
* The system should validate user credentials and manage sessions.

**3.2 Flight Search**

* Users must be able to search for flights based on the following criteria:
  + Departure airport
  + Arrival airport
  + Flight date
  + Number of passengers
  + Class of service (Economy, Business)

**3.3 Display Available Flights**

* The system will display a list of available flights matching the user’s search criteria.
* Each flight will show:
  + Flight ID
  + Departure and arrival airports
  + Departure and arrival times
  + Available seats
  + Base price

**3.4 Flight Selection**

* Users can select a flight from the list of available flights.
* The system will confirm the selection and proceed to the passenger information step.

**3.5 Passenger Information**

* Users must enter passenger details, including:
  + Full name
  + Passport number
  + Date of birth
  + Nationality

**3.6 Payment Processing**

* Users must provide payment information to complete their bookings, including:
  + Credit card number
  + Expiry date
  + Payment method (e.g., Credit Card, PayPal)
* The system must securely process the payment and confirm the booking.

**3.7 Booking Confirmation**

* After a successful payment, the system will generate a booking confirmation.

**3.9 Admin Dashboard**

* An admin dashboard will be available for managing the system.
* Admins can:
  + View a list of all users and their booking history.
  + Add, update, or delete flight information.
  + Monitor system performance and user activity.

**4. Technology Stack**

* **Frontend**: ASP.NET MVC, HTML5, CSS3, Bootstrap
* **Backend**: ASP.NET Core, Entity Framework
* **Database**: Microsoft SQL Server