

# Flight Ticketing Web Service

## 1. Overview

The system is a web application where:

- Users can search, view, and buy flight tickets.
- Users can view their purchased tickets and flight schedules if logged in
- Airline companies can manage their own flights via a company dashboard.
- Administrators can manage users, companies, and the overall platform.
- The system supports browser notifications for flight reminders (bonus)

## 2. Functional Requirements

### 2.1 User Features

#### 1. Landing Page

- Advertisement banners slider (promote your service or some cool offer).
- Flight search (origin, destination, date, passengers).
- Highlighted offers.
- Login / Sign up.

#### 2. Authentication

- User registration and login.
- User roles:
  - Regular User
  - Company Manager
  - Admin

#### 3. Dashboard (for Regular Users)

- Search available flights with filters (price, airline, time, stops).
- View flight details (airline, flight number, duration, layovers).
- Buy tickets (simple checkout, mark as paid in system) -> return confirmation id
- View purchased tickets (with booking details) by confirmation id.

- View flight schedules.
- Tickets can be canceled up to **24 hours before the flight** → the user receives a refund (system just marks “refunded”). **Non-refundable period:** Tickets canceled **less than 24 hours before the flight** → no refund (system marks “canceled”)

## 2.2 Airline Company Dashboard

### 1. Management:

- Add, edit, and delete flights.
- Set seat availability and pricing.
- View list of passengers booked on their flights.

### 2. Statistics of the Company

- View total number of flights created.
- View number of active (upcoming) and completed flights.
- See total number of passengers booked.
- View total revenue earned (sum of all ticket sales).
- Basic time filters for statistics (e.g., today, this week, this month, all time).

## 2.3 Admin Panel

### 1. User Management

- View all users, block/unblock.

### 2. Airline Company Management

- Add new airline companies.
- Assign company managers.

- Remove or deactivate companies.

### 3. Content Management

- Update landing page banners and featured offers.

### 4. Statistics of the Service

- View total number of flights created.
- View number of active (upcoming) and completed flights.
- See total number of passengers booked.
- View total revenue earned (sum of all ticket sales).
- Basic time filters for statistics (e.g., today, this week, this month, all time).

## 3. Other Requirements

- Responsive design.
- Basic reliability: system should function smoothly for classroom/demo usage.
- Implementation must be a **web application** (any technology stack may be used).

## 4. Bonus: Deployment

- Deploy the system to make it publicly accessible (e.g., using [pythonanywhere.com](https://pythonanywhere.com), Heroku, or similar hosting services).