FlyNext Database Schema Documentation

1   Overview

This document describes the database models and relationships for FlyNext, derived from the provided Prisma schema. The system supports user accounts, hotel management, bookings, notifications, and integrations with external flight systems. Refer to `/pp1/prisma/ERD.svg` for a detailed ER diagram.

2   Models and Relationships

2.1   User

- **Fields:**

    - `id` (PK, auto-increment), `password`, `first_name`, `last_name`, `email` (unique), `phone_number`, `profileImage`

- **Relationships:**

    - One-to-Many with `Hotel` (as owner)
    - One-to-Many with `HotelReservation`, `Notification`, `Token`, `PaymentSession`, and `TripItinerary`
    - One-to-One with `UserPreference`

2.2   Token

- **Fields:**

    - `id` (PK), `token` (unique), `type`, `expiresAt`, `userId` (FK)

- **Relationships:**

    - Many-to-One with `User` (JWT authentication)

2.3 UserPreference

- **Fields:**

  - id (PK), theme_mode (light/dark), userId (unique FK)

- **Relationships:**

  - One-to-One with User (dark/light mode support)

2.4 Notification

- **Fields:**

  - id (PK), message, created_at, is_read, type (enum: BOOKING/CANCELLATION), userId (FK), reservationId (FK)

- **Relationships:**

  - Many-to-One with User (recipient)
  - Many-to-One with HotelReservation (trigger event)

2.5 Hotel

- **Fields:**

  - id (PK), name, address, city, country, star_rating, ownerId (FK), amenities (JSON)

- **Relationships:**

  - Many-to-One with User (hotel owner)
  - One-to-Many with HotelRoomType and HotelReservation

2.6 HotelRoomType

- **Fields:**

  - id (PK), hotelId (FK), name, price_per_night, room_count, amenities (JSON)

- **Relationships:**

  - Many-to-One with Hotel
  - One-to-Many with HotelReservation

2.7 HotelReservation

- **Fields:**

  - id (PK), check_in_time, check_out_time, is_cancelled, is_paid, hotelId (FK), hotelRoomTypeId (FK), userId (FK)

- **Relationships:**

  - Many-to-One with User (booker), Hotel, and HotelRoomType
  - One-to-Many with Notification
  - Optional link to TripItinerary (combined bookings)

2.8 TripItinerary

- **Fields:**

  - id (PK), afs_booking_reference (external flight ID), total_price, invoice_url, userId (FK)

- **Relationships:**

  - Many-to-One with User
  - One-to-Many with HotelReservation (combined trips)

2.9 PaymentSession

- **Fields:**

  - id (PK), session_data (JSON), expires_at, userId (FK)

- **Relationships:**

  - Many-to-One with User (temporary checkout data)

3 Key Relationships Summary

Model A	Model B	Relationship
User	Token	One-to-Many
User	UserPreference	One-to-One
User	Hotel	One-to-Many (ownership)
Hotel	HotelRoomType	One-to-Many
HotelReservation	Notification	One-to-Many
TripItinerary	HotelReservation	One-to-Many