

- **userId (Int)** - Unique identifier for each user.
- **password (String)** - Encrypted password.

- **firstName (String)** - User's first name.
- **lastName (String)** - User's last name.
- **email (String, Unique)** - User's email address.
- **picture (String, Default: 'default.jpg')** - Profile picture File Path.
- **phoneNumber (String)** - Phone number.
- **hotelBooking (Relation)** - List of hotel bookings made by the user.
- **flightBooking (Relation)** - List of flight bookings made by the user.
- **hotelManagers (Relation)** - Links users who manage hotels.
- **notifications (Relation)** - List of notifications received.
- **itineraries (Relation)** - User's travel itineraries.

2. Notifications Model

Stores notifications for users, including booking updates.

- **id (Int, Auto-Increment)** - Unique identifier.
- **userId (Int, Foreign Key)** - References User.
- **message (String)** - Notification content.
- **date (DateTime, Default: now())** - Timestamp.
- **read (Boolean, Default: false)** - Indicates if the notification has been read.
- **type (String)** - Type of notification (USER or HOTEL_MANAGER).

3. Hotel Model

Represents hotels listed on the platform.

- **hotelId (Int, Auto-Increment)** - Unique hotel identifier.
- **name (String)** - Hotel name.
- **logo (String, Default: 'default.jpg')** - Hotel logo File Path.
- **address (String)** - Hotel address.
- **city (String)** - City where the hotel is located.
- **country (String)** - Country of the hotel.
- **latitude (Float)** - GPS latitude.
- **longitude (Float)** - GPS longitude.
- **starRating (Int)** - Star rating of the hotel.
- **hotelBooking (Relation)** - Hotel bookings.

- **managers (Relation)** - Links hotel managers.
- **images (Relation)** - Hotel images.
- **rooms (Relation)** - Room types in the hotel.
- **amenities (Relation)** - Amenities provided by the hotel.
- **Unique Constraint:** Combination of name and address must be unique.

4. HotelManager Model

Links users with hotels they manage.

- **managerId (Int, Auto-Increment)** - Unique identifier.
- **userId (Int, Foreign Key)** - References User.
- **hotelId (Int, Foreign Key)** - References Hotel.
- **Unique Constraint:** Combination of userId and hotelId must be unique.

5. HotelImage Model

Stores images for the hotel building.

- **imageId (Int, Auto-Increment)** - Unique identifier.
- **image (String)** - Image URL.
- **hotelId (Int, Foreign Key)** - References Hotel.

6. HotelRoomType Model

Defines room types available in hotels.

- **roomId (Int, Auto-Increment)** - Unique identifier.
- **hotelId (Int, Foreign Key)** - References Hotel.
- **roomType (String)** - Type of room (e.g., Twin, Double).
- **price (Float)** - Price per night.
- **numberAvailable (Int)** - Number of rooms available.
- **hotelBooking (Relation)** - Bookings related to this room type.
- **images (Relation)** - Images of this room.
- **amenities (Relation)** - List of amenities for this room.

- **Unique Constraint:** Combination of hotelId and roomType must be unique.

7. Amenity Model

Stores hotel amenities (e.g., Swimming Pool, WiFi).

- **id (Int, Auto-Increment)** - Unique identifier.
- **hotelId (Int, Foreign Key)** - References Hotel.
- **amenity (String)** - Amenity name.
- **rooms (Relation)** - Many-to-many relation with HotelRoomType.

8. HotelBooking Model

Tracks hotel reservations.

- **id (Int, Auto-Increment)** - Unique identifier.
- **userId (Int, Foreign Key)** - References User.
- **referenceId (String, Unique)** - Booking reference.
- **hotelId (Int, Foreign Key)** - References Hotel.
- **roomId (Int, Foreign Key)** - References HotelRoomType.
- **price (Float)** - Booking price.
- **checkIn (DateTime)** - Check-in date.
- **checkOut (DateTime)** - Check-out date.
- **bookingMade (DateTime)** - Timestamp when booking was made.
- **bookingCanceled (Boolean, Default: false)** - Cancellation status.
- **canceledDate (DateTime?)** - Date of cancellation.
- **itineraries (Relation)** - Linked itinerary.

9. FlightBooking Model

Tracks flight reservations.

- **id (Int, Auto-Increment)** - Unique identifier.
- **userId (Int, Foreign Key)** - References User.
- **bookingReference (String, Unique)** - Booking reference.

- **bookingMade (DateTime)** - Timestamp.
- **bookingCanceled (Boolean, Default: false)** - Cancellation status.
- **canceledDate (DateTime?)** - Date of cancellation.
- **Itineraries (Relation)** - Links with itinerary model.

10. Itinerary Model

Stores combined travel plans (flights + hotels).

- **itineraryId (Int, Auto-Increment)** - Unique identifier.
- **userId (Int, Foreign Key)** - References User.
- **forwardFlightBookingRef (String?)** - Forward flight reference.
- **returnFlightBookingRef (String?)** - Return flight reference.
- **hotelBookingRef (String?)** - Hotel booking reference.
- **itineraryRef (String, Unique)** - Unique itinerary identifier.

11. Airport Model

Stores airport details.

- **id (String, Primary Key)** - Unique identifier.
- **code (String, Unique)** - Airport code.
- **name (String)** - Airport name.
- **city (String)** - City where the airport is located.
- **country (String)** - Country where the airport is located.
- **Unique Constraint:** Combination of city, country, and name must be unique.

12. City Model

Stores city information.

- **id (Int, Auto-Increment)** - Unique identifier.
- **city (String)** - City name.
- **country (String)** - Country name.
- **Unique Constraint:** Combination of city and country must be unique.

13. LastGeneratedId Model

Tracks last generated IDs for reference numbers.

- **type (String, Primary Key)** - Type of ID.
- **value (Int)** - Last used ID value.

8. RoomAmenity

Stores amenities provided for a room type in a hotel.

- **id (Int, Primary Key)** - Type of ID.
- **roomId (Int)** - identifier for room amenity applies to.
- **room (HotelRoomType)** – many to one relation to room type.
- **amenity (String)** - the amenity provided.

This schema ensures data integrity and supports a scalable travel booking system.