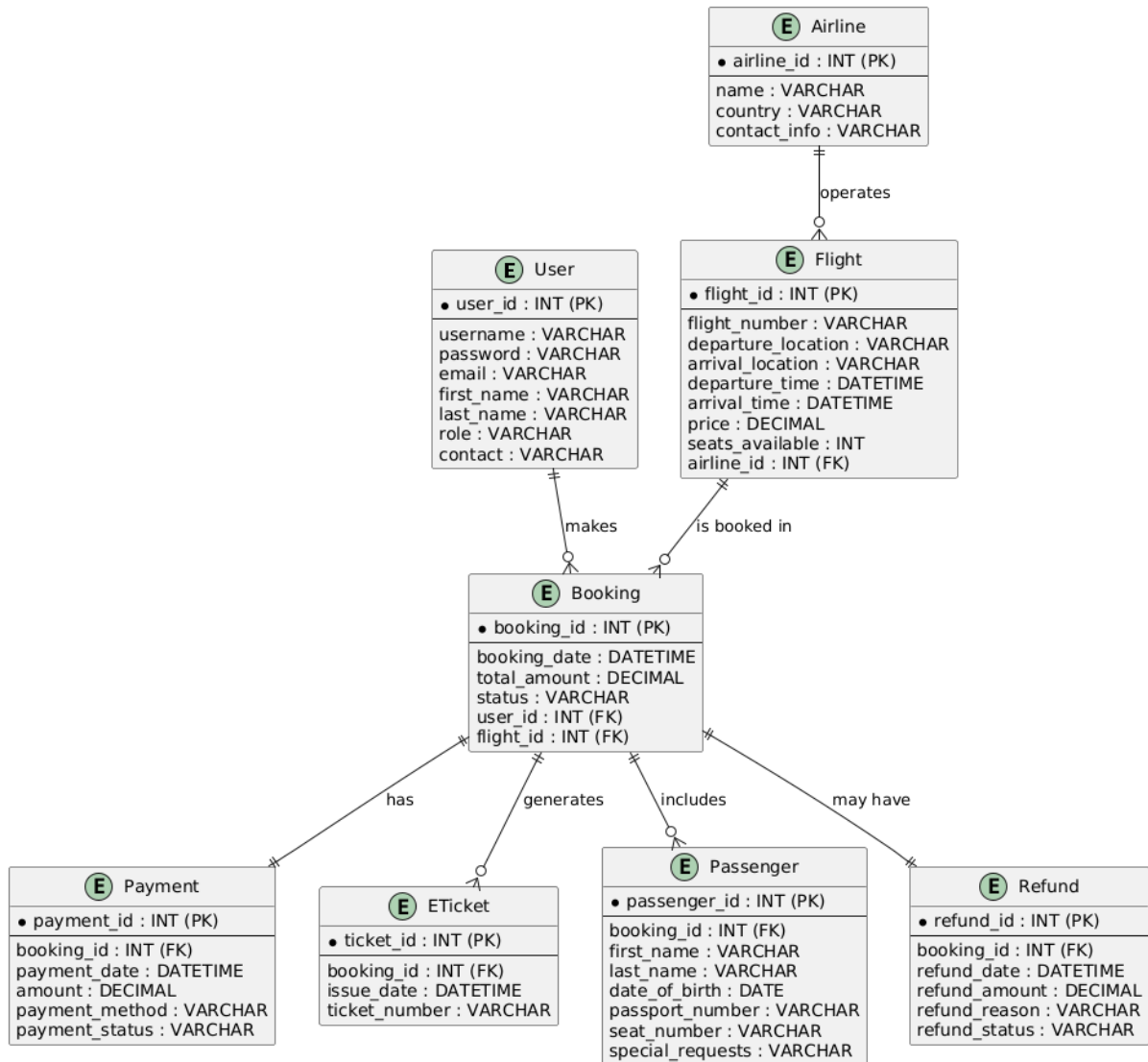


Detailed ER Diagram



1. User

– **Purpose:** Stores information for all system users (customers, sales managers, admin, and planning managers).

– **Attributes:**

- `user_id`: Unique identifier (Primary Key).
- `username`, `password`, `email`, `first_name`, `last_name`, `role`, `contact`.

2. Airline

- **Purpose:** Represents the airline carriers available in the system.
- **Attributes:**
 - airline_id: Unique identifier (Primary Key).
 - name, country, contact_info.

3. Flight

- **Purpose:** Contains flight details that users search and book.
- **Attributes:**
 - flight_id: Unique identifier (Primary Key).
 - flight_number, departure_location, arrival_location, departure_time, arrival_time, price, seats_available.
 - airline_id: Foreign Key linking to the Airline entity.

4. Booking

- **Purpose:** Captures the booking or sales transaction made by a user for a particular flight.
- **Attributes:**
 - booking_id: Unique identifier (Primary Key).
 - booking_date, total_amount, status (e.g., confirmed, cancelled).
 - user_id: Foreign Key linking to the User entity.
 - flight_id: Foreign Key linking to the Flight entity.

5. Payment

- **Purpose:** Records payment details for each booking.
- **Attributes:**
 - payment_id: Unique identifier (Primary Key).
 - booking_id: Foreign Key linking to the Booking entity.
 - payment_date, amount, payment_method, payment_status (e.g., approved, declined).

6. ETicket

– **Purpose:** Stores electronic ticket details generated after a successful booking and payment.

– **Attributes:**

- ticket_id: Unique identifier (Primary Key).
- booking_id: Foreign Key linking to the Booking entity.
- issue_date, ticket_number.

7. Passenger

– **Purpose:** Holds individual passenger details for each booking, which is especially useful if a booking includes multiple passengers.

– **Attributes:**

- passenger_id: Unique identifier (Primary Key).
- booking_id: Foreign Key linking to the Booking entity.
- first_name, last_name, date_of_birth, passport_number, seat_number, special_requests.

8. Refund

– **Purpose:** Records refund requests or actions linked to a booking, supporting the “Request Refund” use case.

– **Attributes:**

- refund_id: Unique identifier (Primary Key).
- booking_id: Foreign Key linking to the Booking entity.
- refund_date, refund_amount, refund_reason, refund_status.