Hotel Management System

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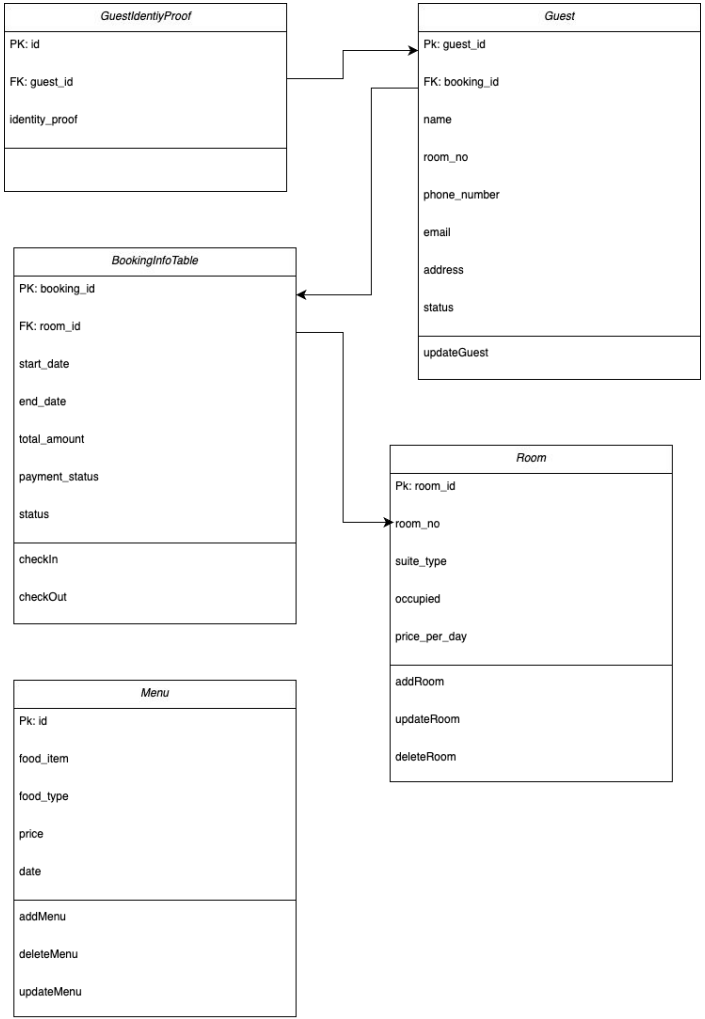
Table Design



Services

1) Booking Service: Developed using the Play Framework, it manages all room-related booking operations and functionalities.

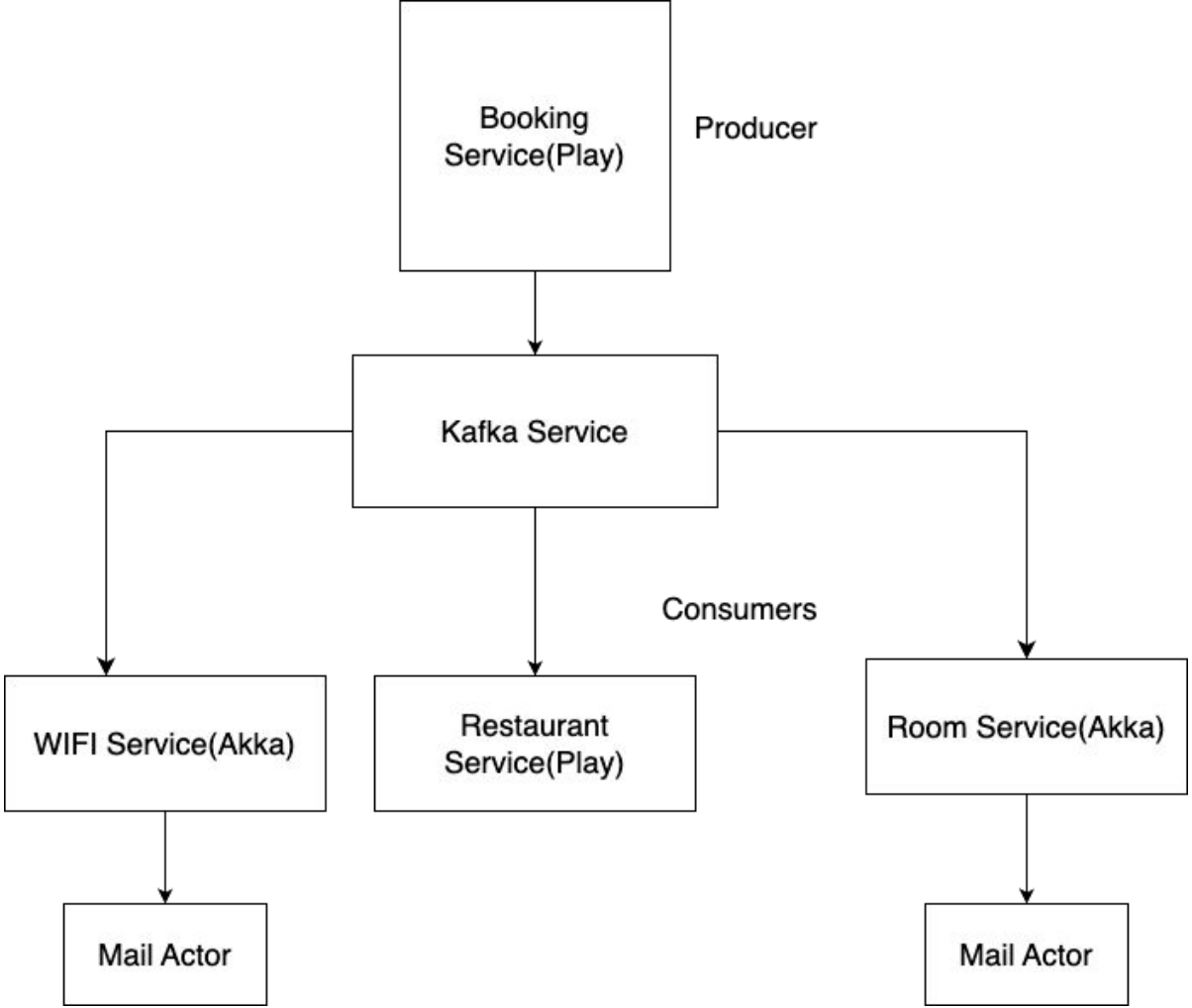
2) Kafka Service: Ensures reliable inter-service communication through message queue management.

3) WiFi Service: Built with Akka, this service handles the generation and delivery of Wi-Fi credentials to users.

4) Room Service: Implemented using Akka, it sends greeting messages and other room service-related notifications to users.

5) Restaurant Service: Created using the Play Framework, it manages and delivers menu details to users.

Service Flow



Logic Flow

1. Room Booking and Guest Check-In

- The **Booking Service** (implemented using Play Framework) handles room bookings and guest check-ins.
- Upon check-in, guest details are stored, and an ID proof is uploaded.
- The guest's status is set to **checked-in**, and a message is sent to Kafka.

2. Kafka Message Production

- The **Booking Service** produces a Kafka message upon guest check-in.
- This message contains the necessary details (guest, room, check-in) and is sent to Kafka.

3. WiFi Service Consumption (Akka-based)

- The **WiFi Service** consumes the Kafka message.
- It sends the guest Wi-Fi credentials to the guest via email using mail Actor.

4. Room Service Consumption (Akka-based)

- The **Room Service** consumes the Kafka message.
- It sends a welcome email to the guest with emergency contact details and room service info using mail Actor.

5. Restaurant Service Consumption (Play Framework-based)

- The **Restaurant Service** consumes the Kafka message.
- It sends the daily menu to the guest via email, starting upon check-in.

6. Check-Out and Notification Stop

- Upon guest check-out, the **Booking Service** updates the guest's status to **checked-out**.
- Kafka messages are sent to stop the notifications from **Restaurant Service**.