**Systems Analysis and Design**

**Phase 1 Use Case Narrative**

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**Use Case Name:** Book Room

**Goal Statement:** Allow members to book a hotel room for their desired dates.

**Primary Actor:** Member

**Secondary Actors:** Payment Gateway

**Pre-conditions:**

* The member has logged in and accessed the hotel booking system.
* Room availability and pricing information is up to date.

**Post-conditions:**

* The member has successfully booked a hotel room.
* The booking information is stored in the system and payment has been processed.

**Main Flow:**

1. The member selects the desired check-in and check-out dates, location, room type, and hotel.
2. The system displays the available rooms and rates that match the selected criteria.
3. The member selects a room.
4. The system prompts the member to provide payment information.
5. The guest or member enters the required information and confirms the booking.
6. The system processes the payment via the Payment Gateway.
7. The system confirms the booking, generates a booking confirmation, and sends it via email.

**Alternate Scenario:** **Preferred Hotel Room Unavailable**

In step 2 of the main flow scenario, no rooms meeting the member's criteria are available for the preferred hotel on selected dates.

1. The system displays alternative hotel rooms to the member according to the member's preferred criteria.
2. The member views and selects an alternative hotel room.
3. The system updates the booking with the alternative hotel room.
4. The flow continues from step 4 of the main flow.

**Alternate Scenario:** **Payment Failure**

In step 6 of the main success scenario, the member's payment is declined or fails.

1. The system displays an error message indicating payment failure.
2. The member tries a different payment method.
3. The system processes the payment via the Payment Gateway.
4. The flow continues from step 7 of the main flow.

**Exception Scenario: Cancellation of Booking Due to Payment Failure**

In step 6 of the main success scenario, the member's payment is declined or fails.

1. The system displays an error message indicating payment failure.
2. The system prompts member to enter a new payment method.
3. The member tries a different payment method.
4. The system displays an error message indicating that the booking cannot be completed due to payment issues.
5. The member cancels the booking process.
6. The system discards the booking information.

**Assumptions:** The hotel room availability and pricing information is updated in real-time and accurately reflects the actual inventory.

**Open Issues:** Determine the process for handling room cancellations, refunds, and any associated fees.