

EXPERIMENT 1

Question:

Draw a UML diagram for hotel reservation system. In a hotel reservation system, a customer can make online booking for a hotel, by specifying the accommodation requirements such as type of room (AC/Non-AC, One bed/two bed), total no of rooms, duration of stay. The system selects a suitable hotel as per customer's requirements. If a hotel is found then the availability of rooms in that hotel is checked. The charges are calculated for the selected requirement and these are acknowledged to the customer. If the customer is satisfactory about the selection made by the system, then he confirms the reservation.

Aim:

To design a UML diagram for a **Hotel Reservation System** that models the process of online hotel booking, where customers specify their accommodation requirements, the system selects a suitable hotel, checks room availability, calculates charges, and confirms the reservation upon customer approval.

Procedure:

1. Customer Selects Hotel & Room

- The customer chooses a hotel from the available list.
- They specify accommodation preferences (room type, number of rooms, duration of stay).

2. Room Availability Check

- The system verifies if the selected hotel has the requested rooms available.
- If rooms are unavailable, the system suggests alternative options.

3. Charge Calculation

- The system calculates the total cost based on the selected room type, number of rooms, and duration.
- The customer is shown the final price for confirmation.

4. Payment

- The customer proceeds with payment.
- If payment is successful, the reservation is confirmed.
- If payment fails, the system prompts the customer to retry.

5. Booking Confirmation

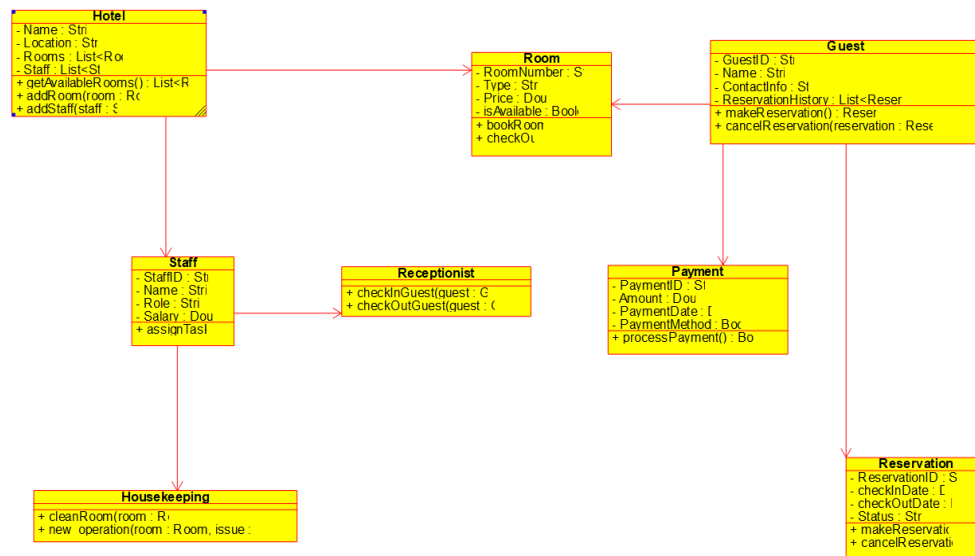
- The system generates a booking confirmation receipt.
- The customer receives a booking ID along with reservation details.

6. Hotel Management

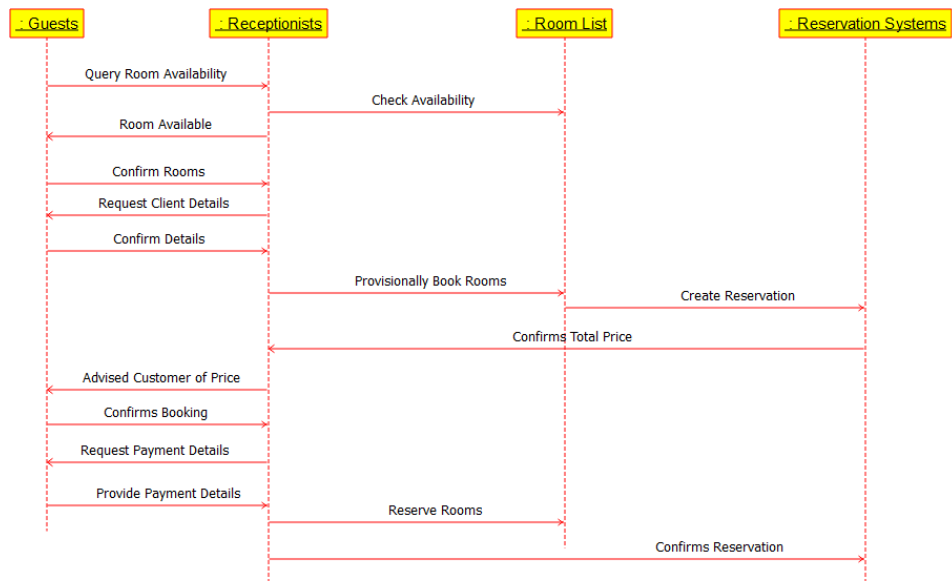
- Hotel staff updates room availability, pricing, and hotel details.
- New hotels or rooms can be added, modified, or removed from the system.

Output:

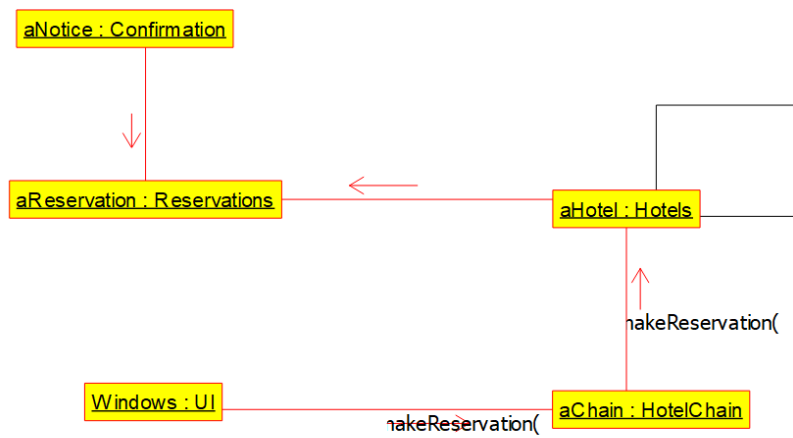
Class Diagram



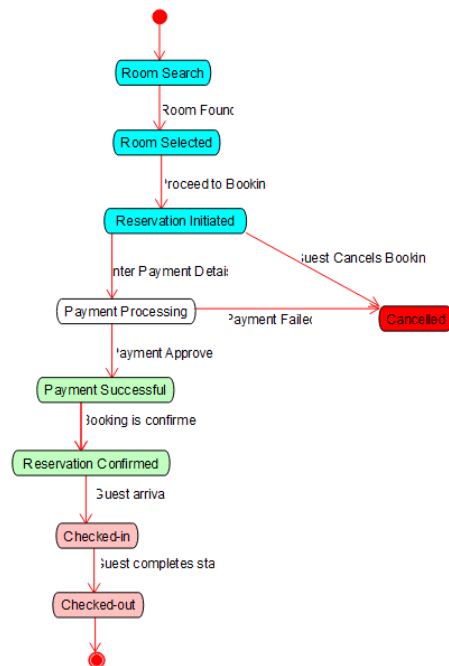
Sequence Diagram



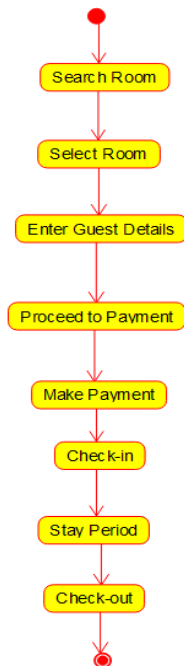
Communication Diagram



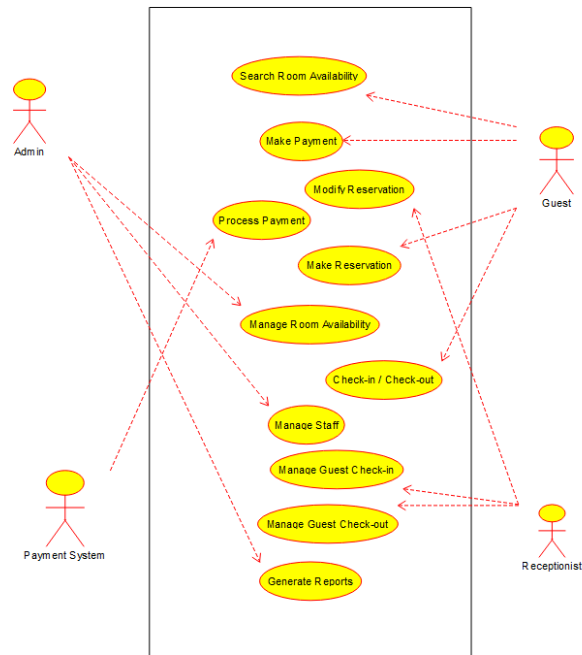
State Diagram



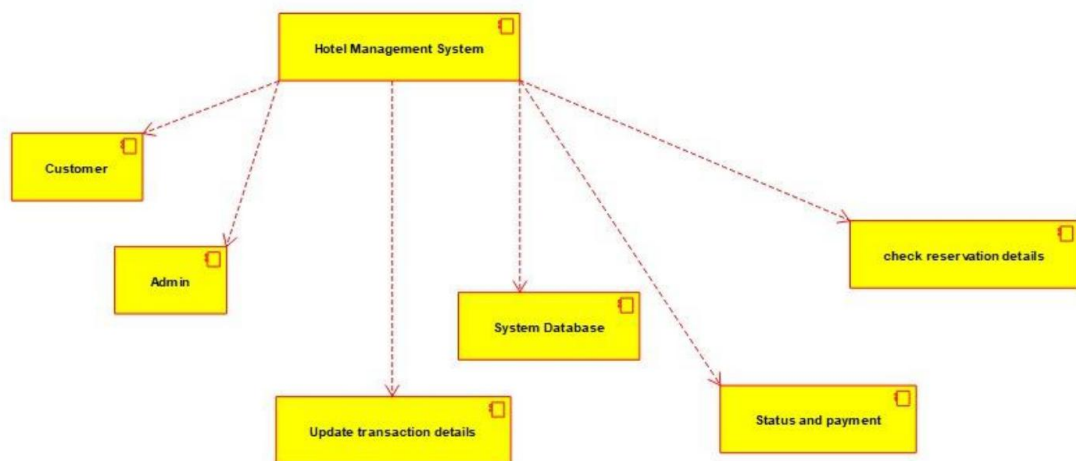
Activity Diagram



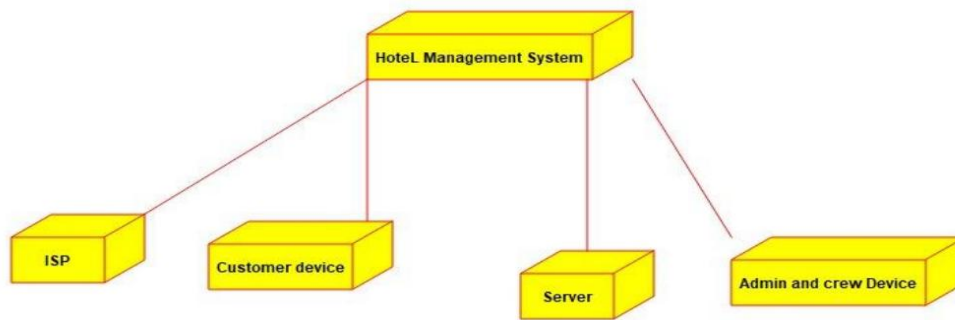
Usecase Diagram



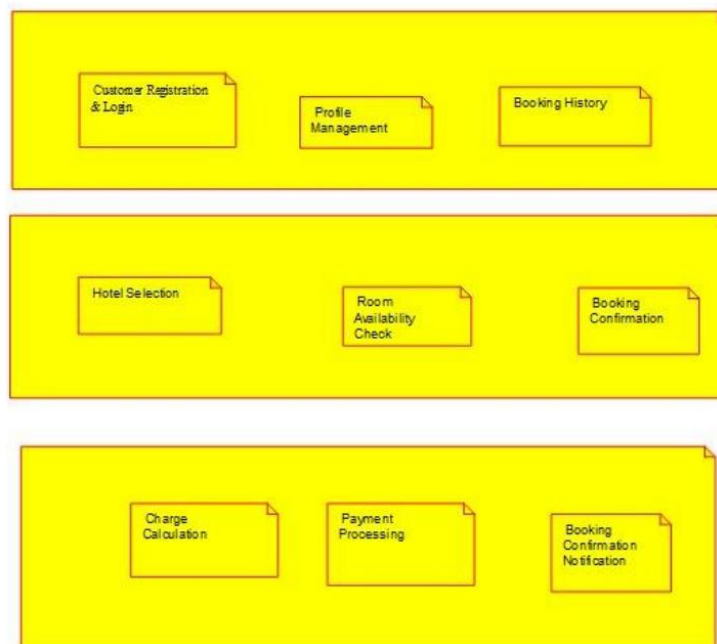
Component Diagram



Deployment Diagram



Package Diagram



Result

The UML diagrams for the Hotel Reservation System successfully illustrate the system's workflow, interactions, and structure. The key processes, including hotel selection, room availability check, charge calculation, payment, booking confirmation, and hotel management, are systematically represented.