

CSA4001-MANAGEMENT INFORMATION SYSTEM FOR DATA OPTIMIZATION

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1. 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 model for a Hotel Reservation System that allows customers to book hotel rooms online based on their accommodation requirements. The system will check availability, calculate charges, and confirm reservations upon customer approval.

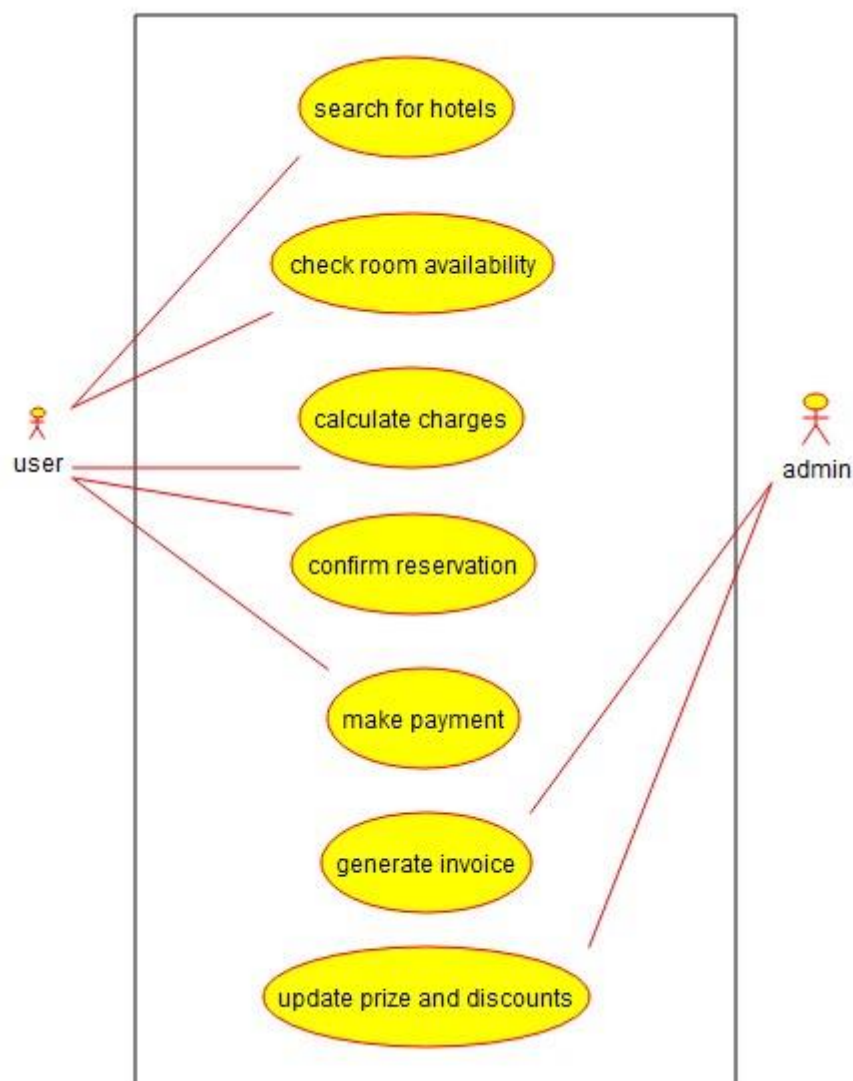
PROCEDURE:

1. Identify system actors such as Customer, Hotel, Payment Gateway, and Administrator.
2. Define key use cases like Booking, Payment, Cancellation, Confirmation, and Modification and their interactions with actors.
3. Develop Use Case, Activity, and State Diagrams to illustrate user interactions, process flow, and booking states.
4. Design the Class Diagram to establish core classes, attributes, methods, and relationships.

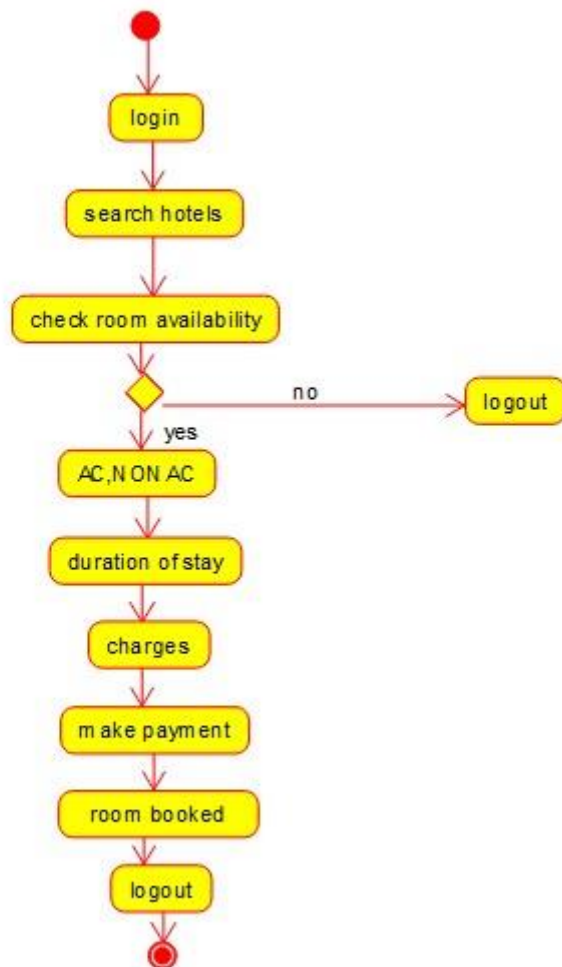
5. Create Sequence and Communication Diagrams to depict message exchanges and object interactions.
6. Build Component and Deployment Diagrams to define the system's architecture and implementation structure.
7. Develop an ER Diagram to model the database structure, including entities, attributes, and relationships.

OUTPUT:

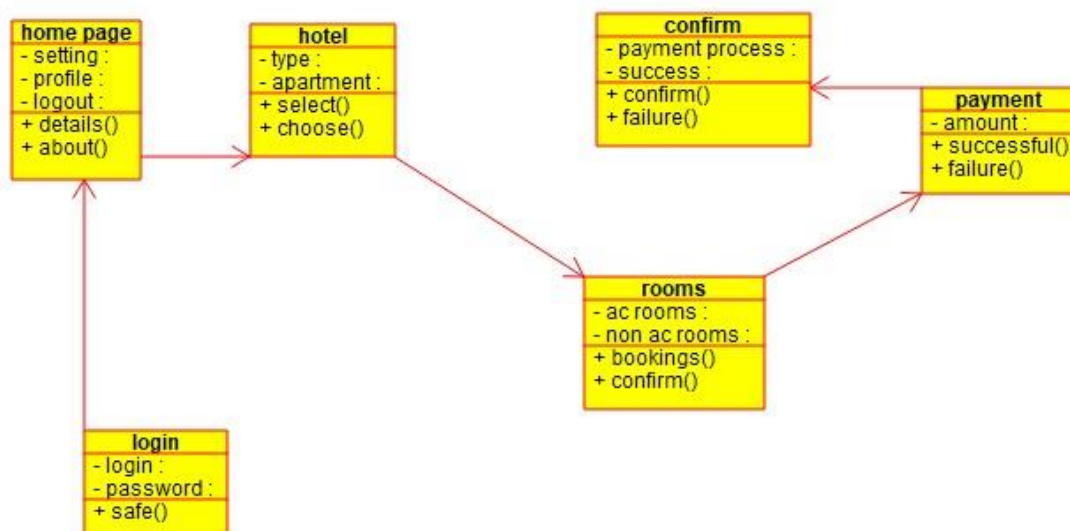
USE CASE DIAGRAM:



ACTIVITY DIAGRAM:



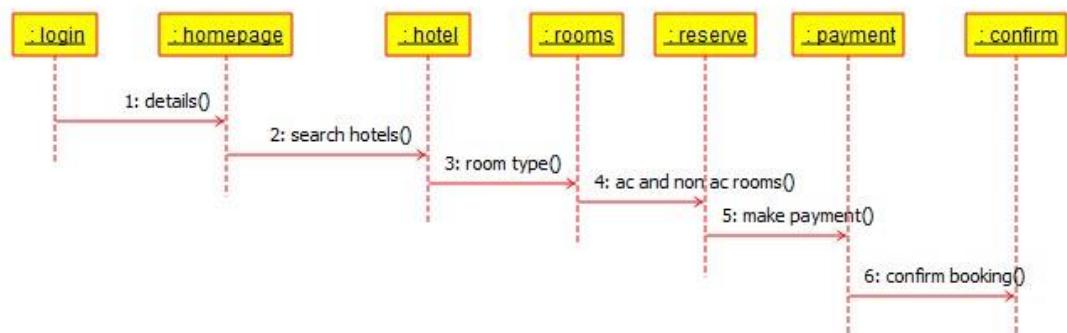
CLASS DIAGRAM:



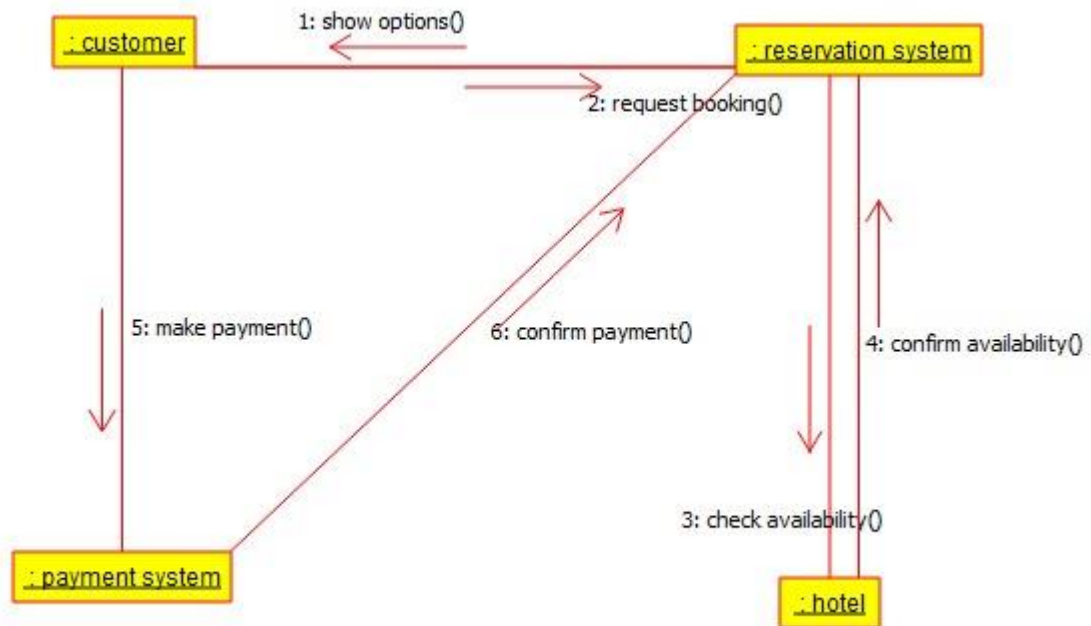
STATE DIAGRAM:



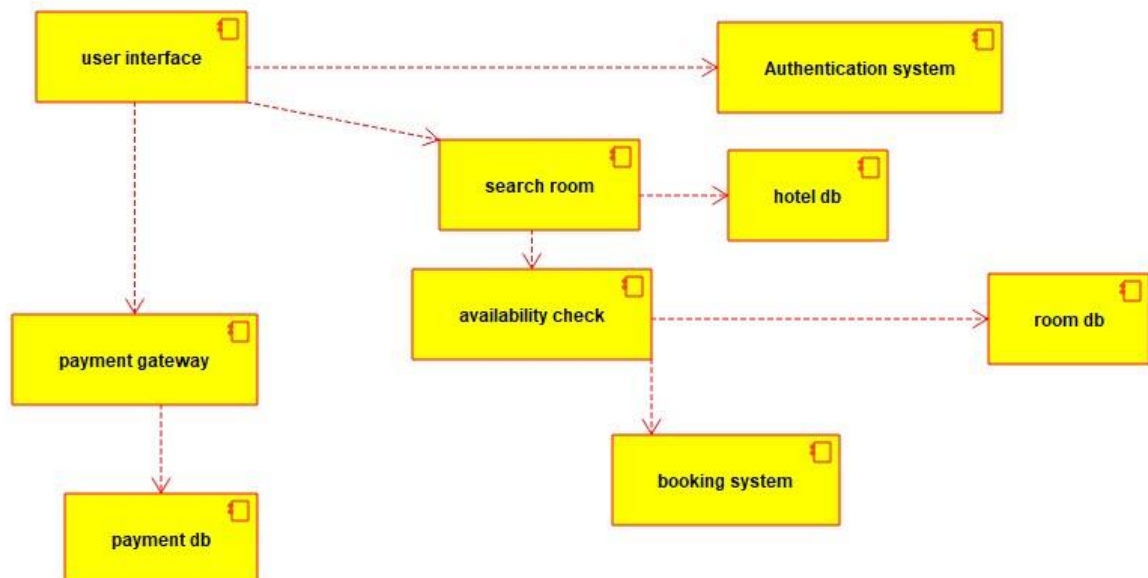
SEQUENCE DIAGRAM:



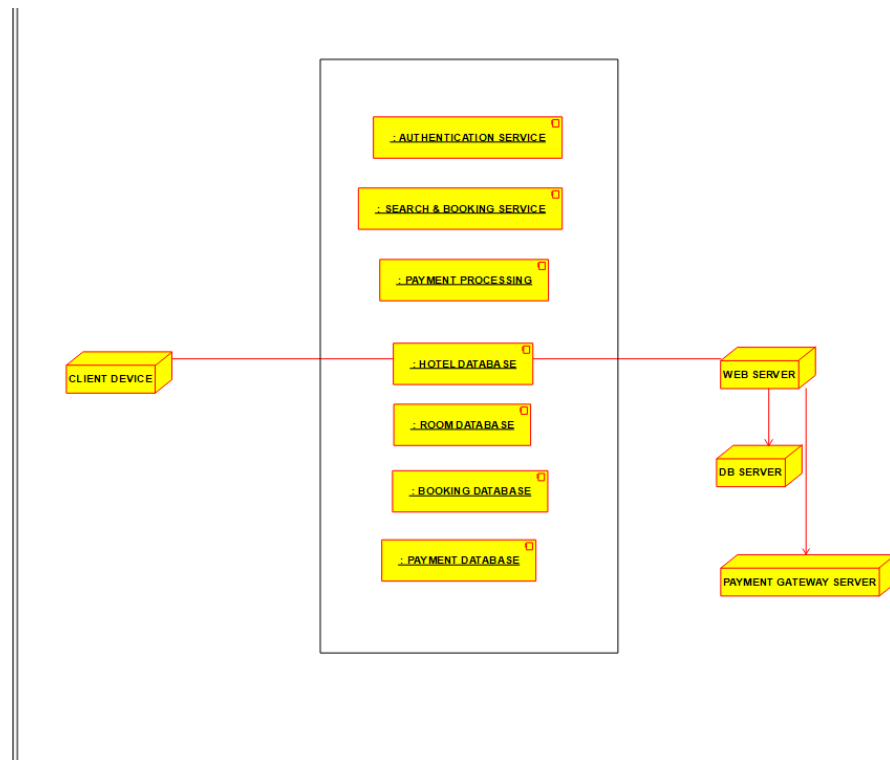
COMMUNICATION DIAGRAM:



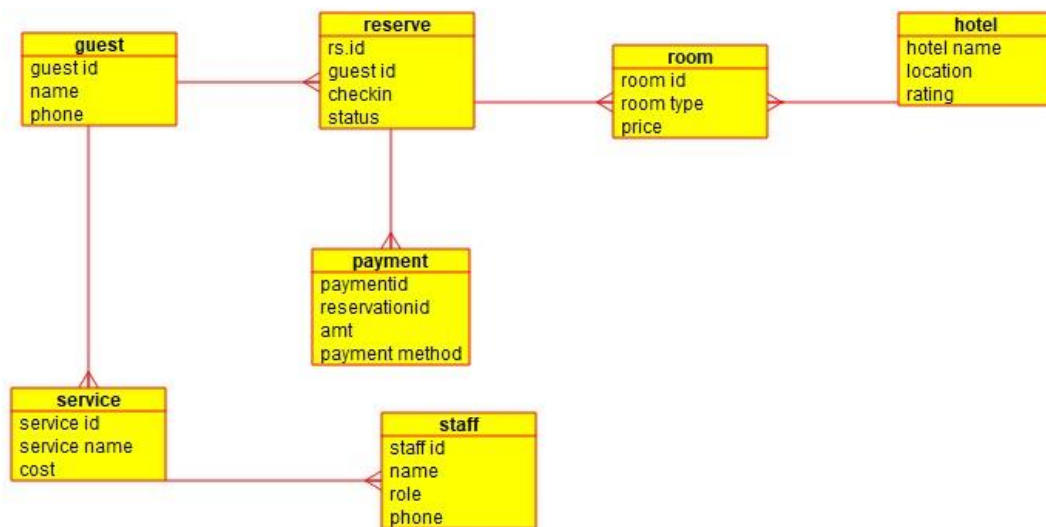
COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



ENTITY RELATIONSHIP DIAGRAM:



RESULT:

The Hotel Reservation System UML diagrams were successfully designed, covering all necessary interactions, workflows, and system components. This provides a structured representation of the system for implementation.