EXPERIMENT 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 diagram for a **Hotel Reservation System** that represents the booking process, including customer requirements, room availability check, and reservation confirmation. It should also include the payment process and booking management. The system should allow hotel staff to update room availability and pricing dynamically.

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.

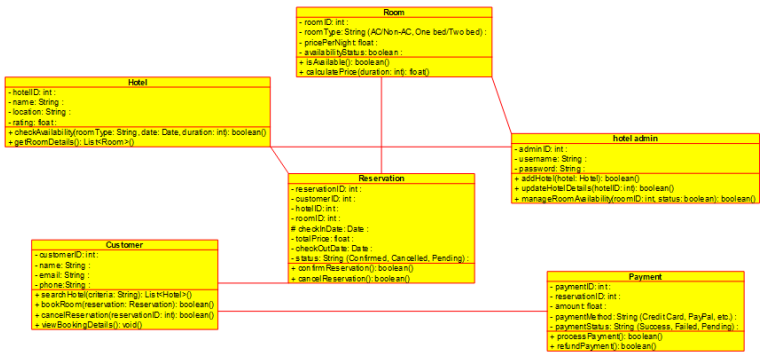
6 **Hotel Management:**

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

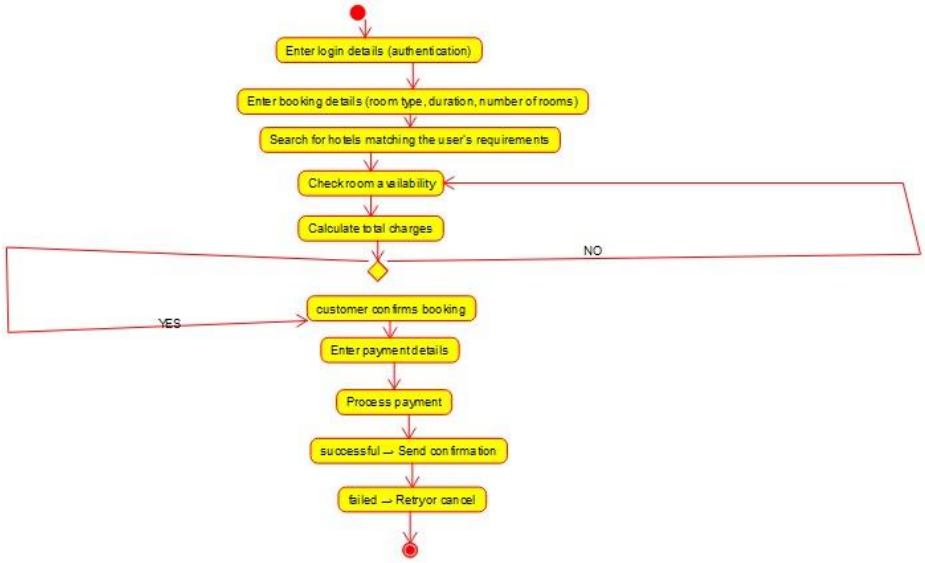
OUTPUT:

USECASE DIAGRAM:

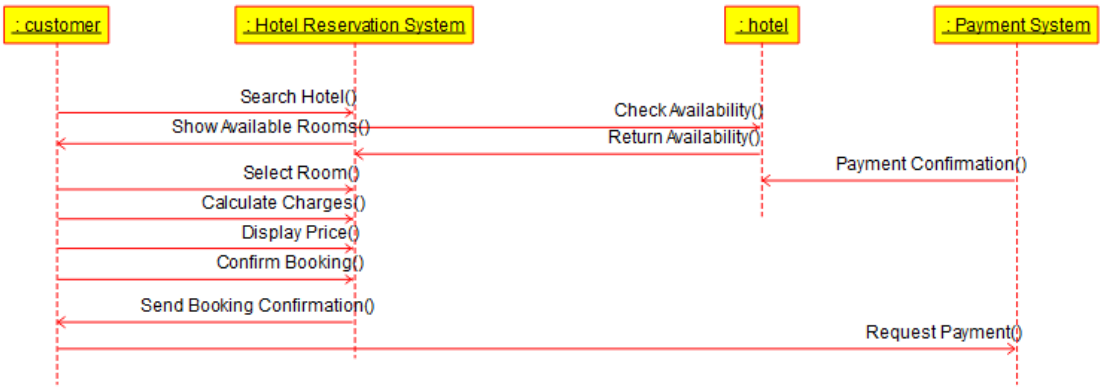
CLASS DIAGRAM:



ACTIVITY DIAGRAM:



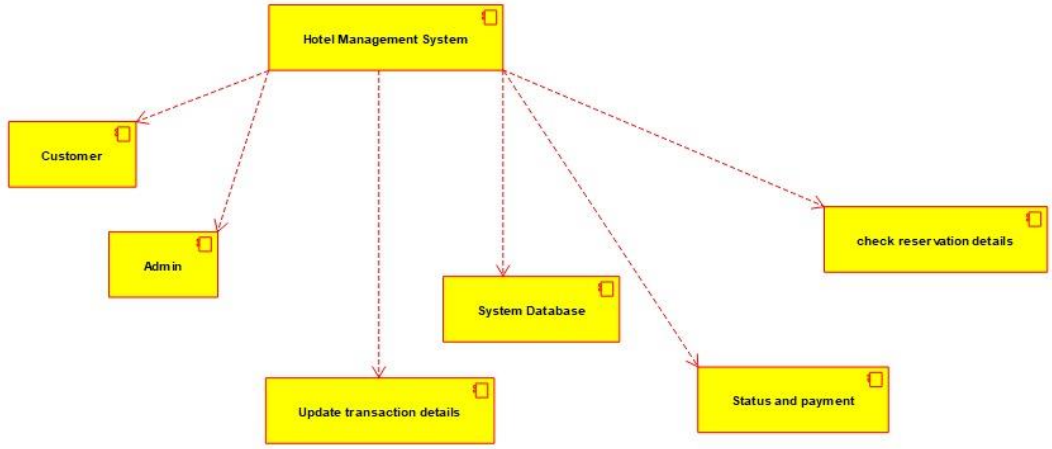
SEQUENCE DIAGRAM:



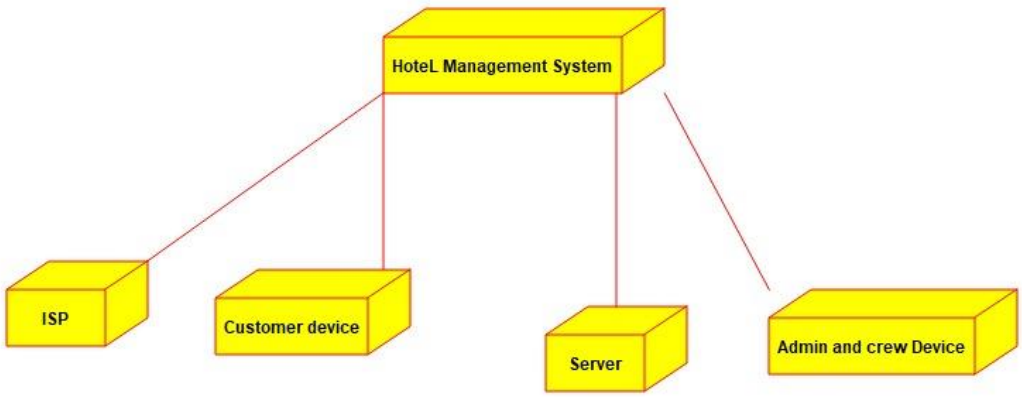
COLLABORATION DIAGRAM:

STATE DIAGRAM:

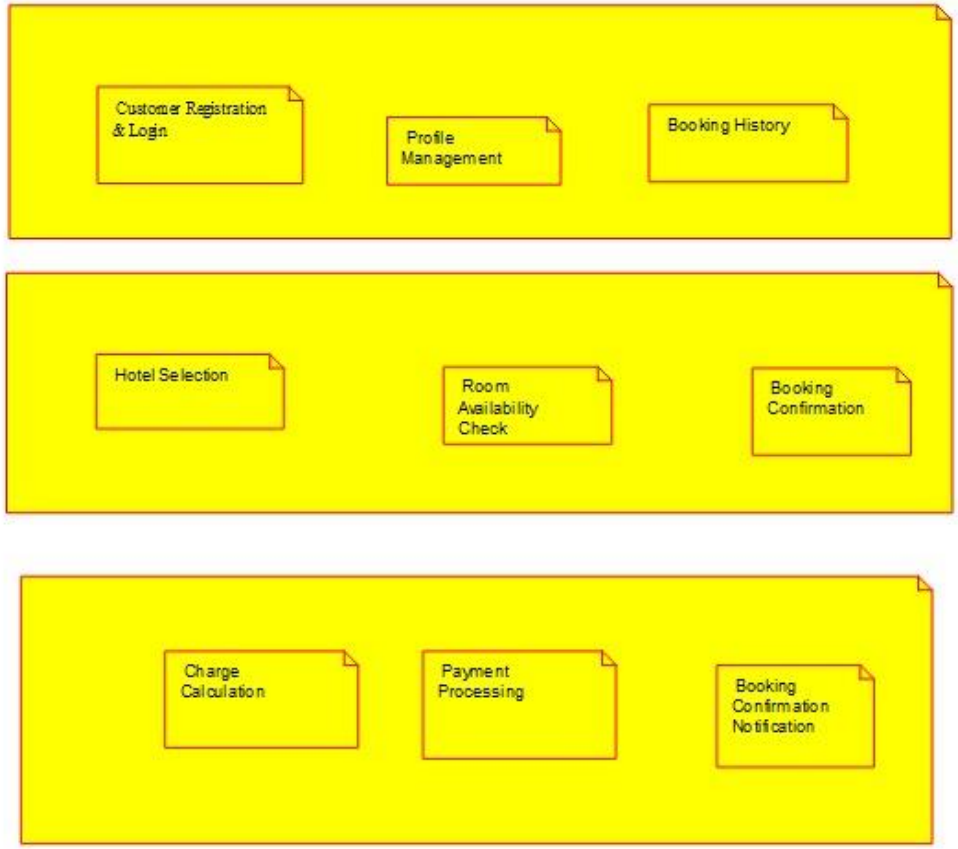
COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



PACKAGE DIAGRAM:



RESULT:

A structured **UML diagram** for the **Hotel Reservation System** is created, illustrating interactions between the **Customer, Hotel, and System**. It effectively represents the process of **hotel selection, room availability check, charge calculation, booking confirmation, and payment processing** . Additionally, it includes hotel management functionalities, allowing staff to **update room availability, pricing, and hotel details** dynamically.