

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 **Hotel Reservation System** using UML diagrams to represent the structure, behavior, and deployment of the system. The objective is to model the booking process, including customer interactions, hotel selection, room availability checks, booking confirmation, and payment processing.

PROCEDURE:

❑ **Understand the System Requirements:**

- Identify the key entities: **Customer, Hotel, Room, Booking, Payment.**
- Define interactions between them.

❑ **Create UML Diagrams:**

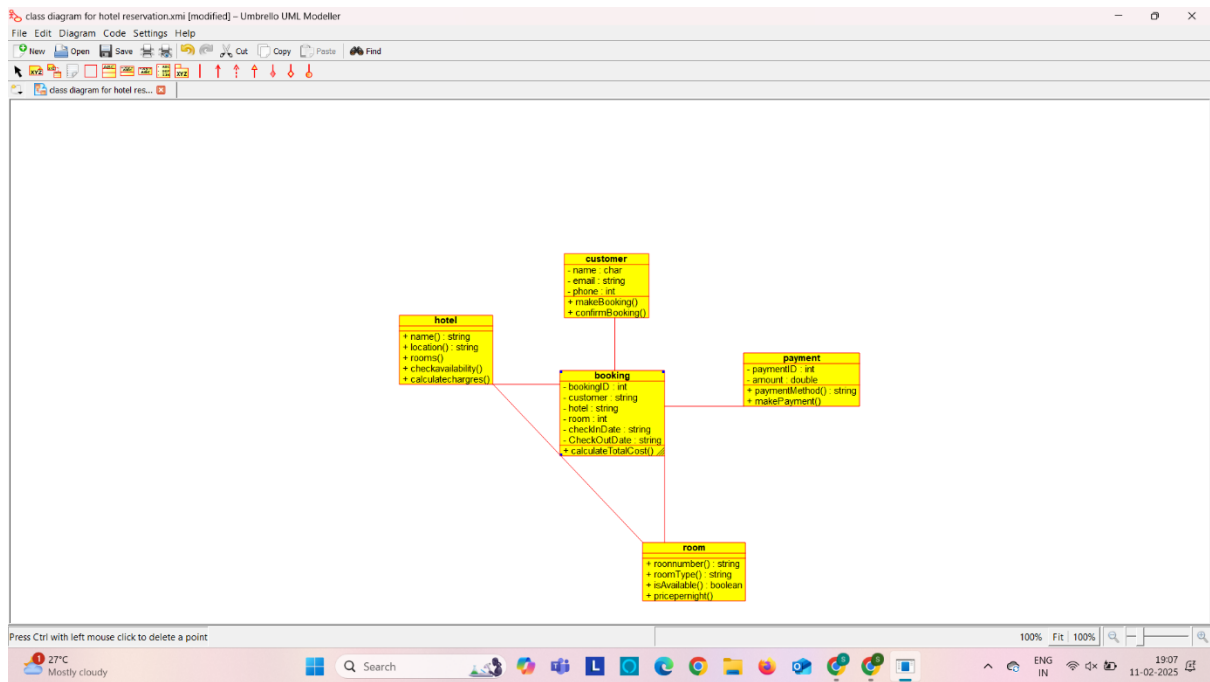
- **Use Case Diagram:** Represents user interactions with the system.
- **Class Diagram:** Defines system components, attributes, and relationships.
- **Activity Diagram:** Shows the step-by-step booking process.
- **Sequence Diagram:** Depicts interactions between objects.
- **State Diagram:** Represents different states of the booking process.
- **Deployment Diagram:** Illustrates system infrastructure.
- **ER Diagram:** Represents the data model.

❑ **Develop the UML Models:**

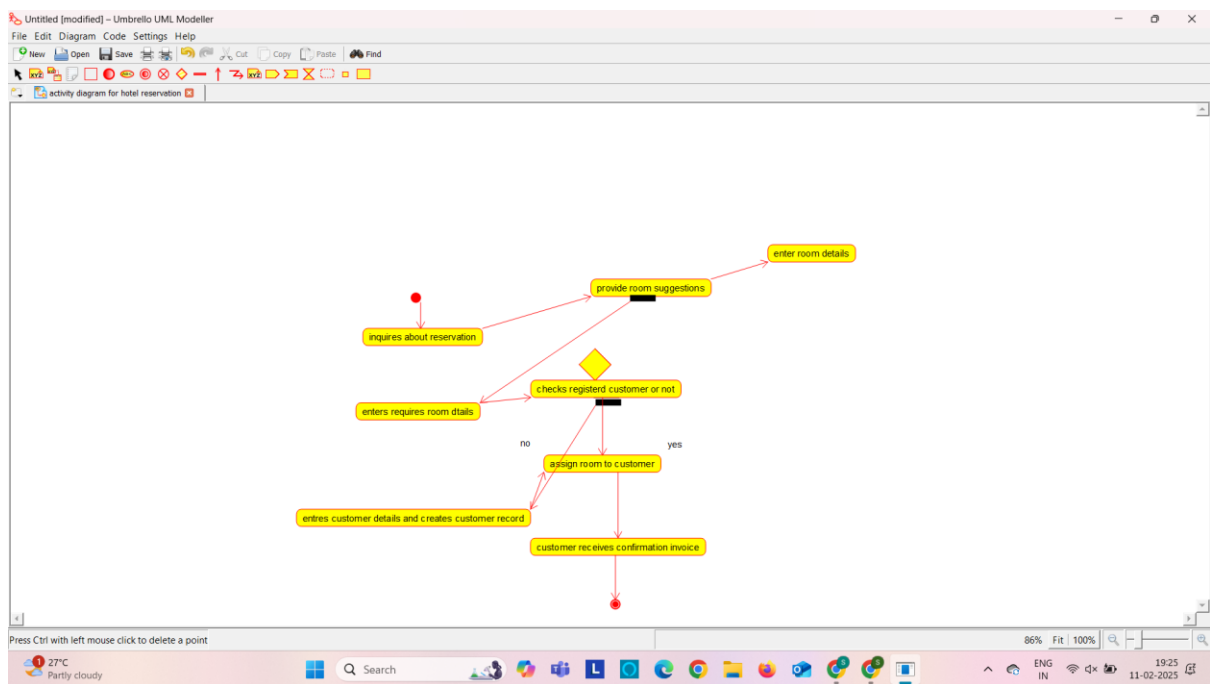
- Use **PlantUML** or any diagramming tool.
- Ensure correct relationships between components.

❑ **Review and Validate:**

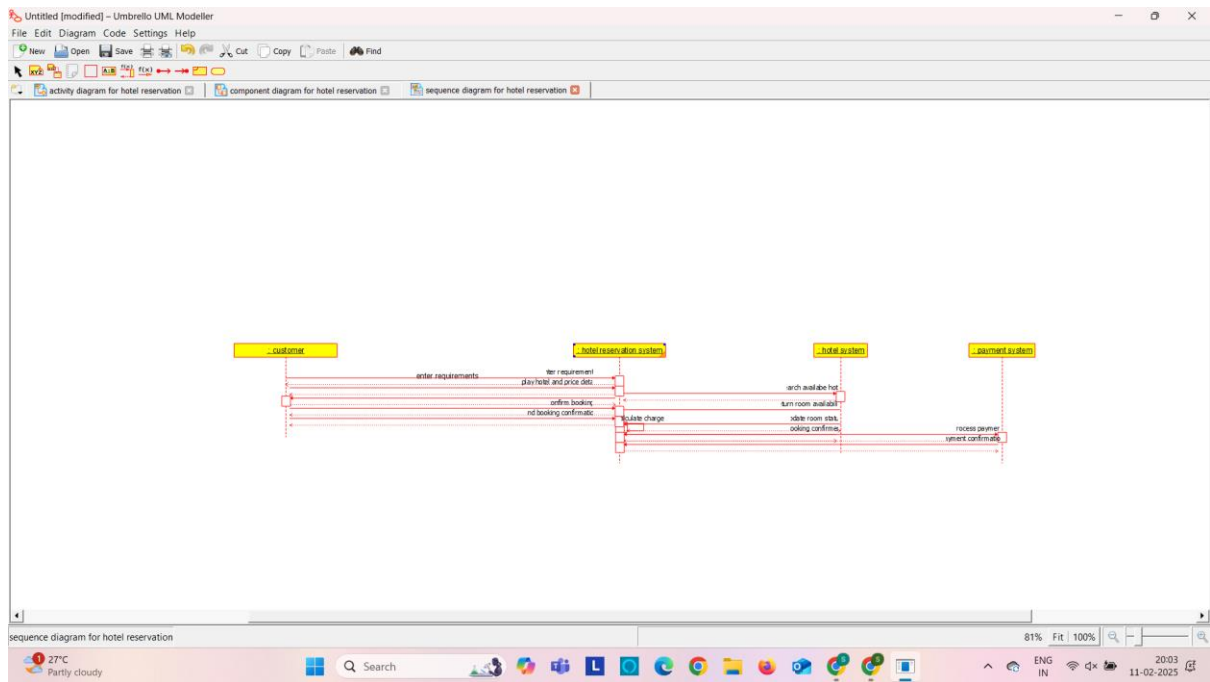
- Check for **consistency** and **correctness** in the diagrams.



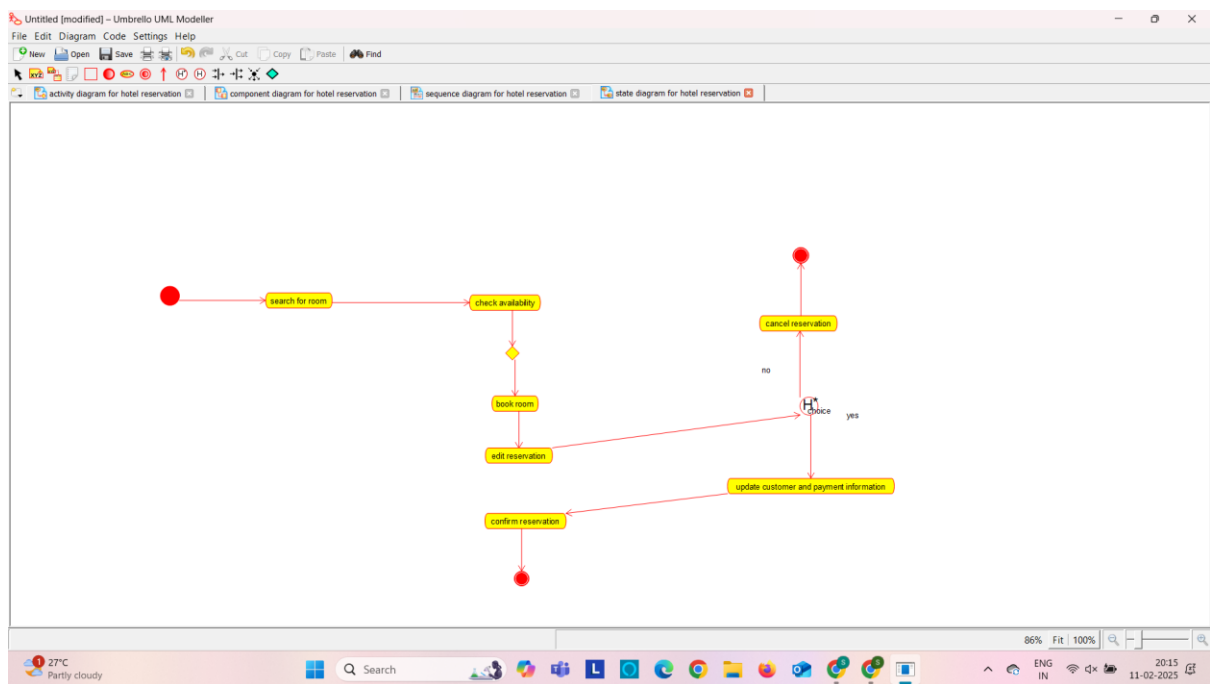
Activity diagram



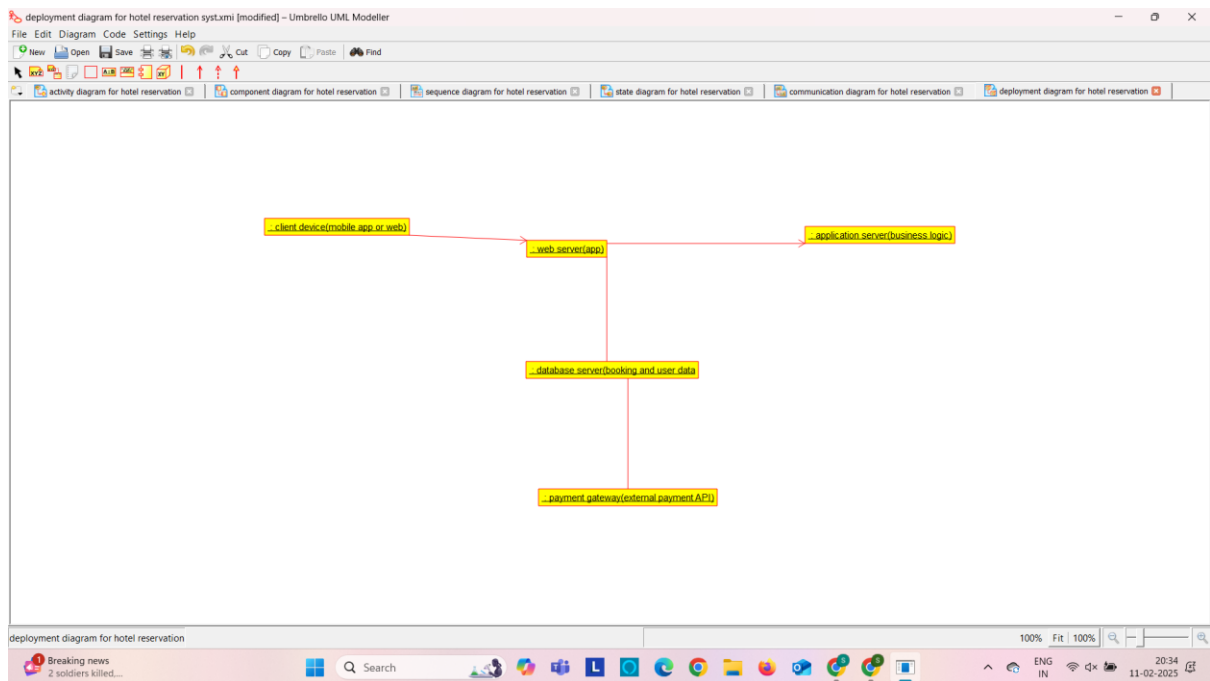
Sequence diagram



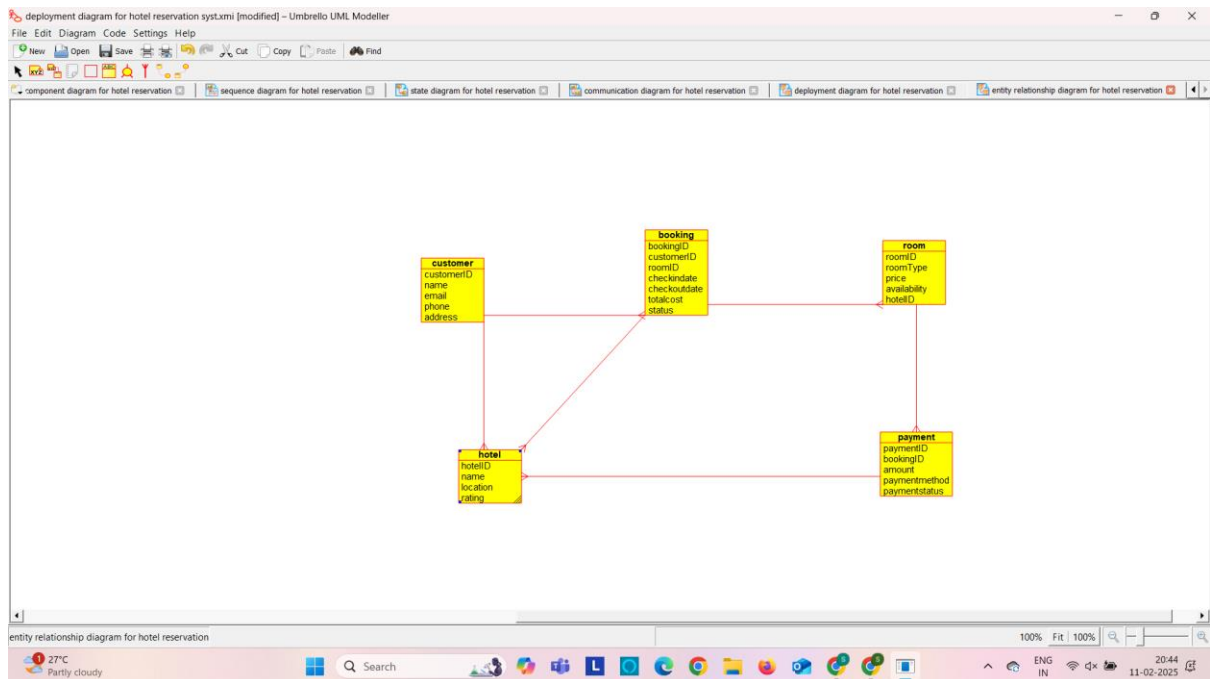
State diagram



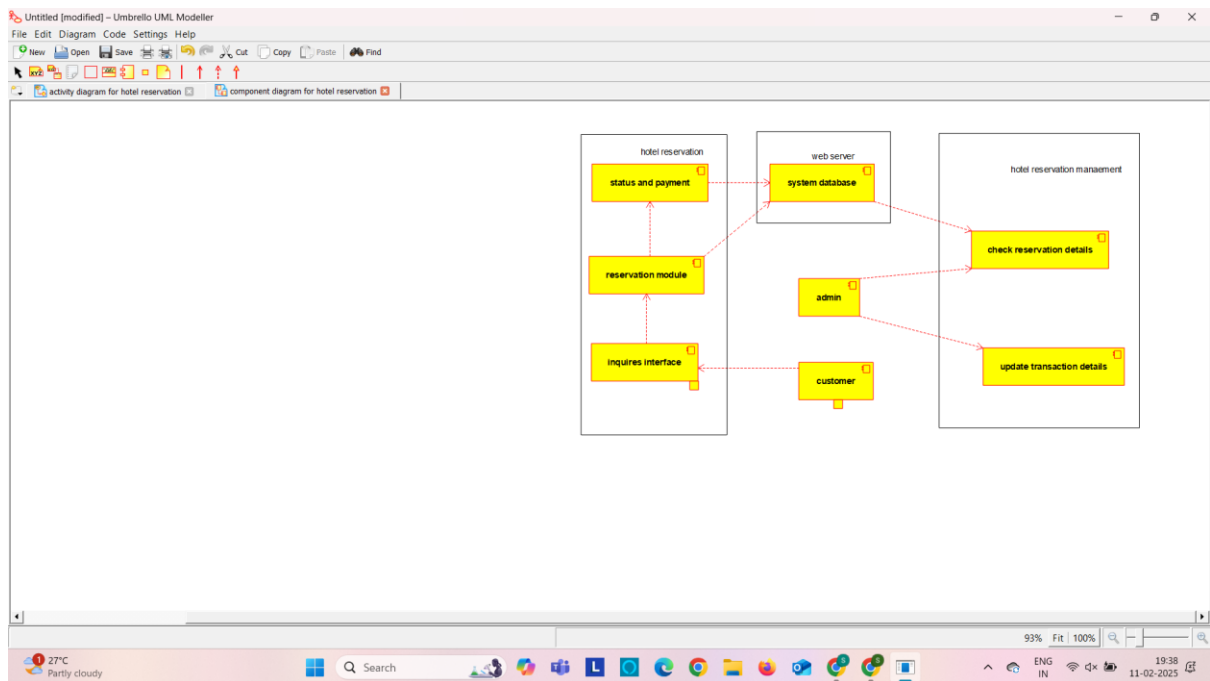
Deployment diagram



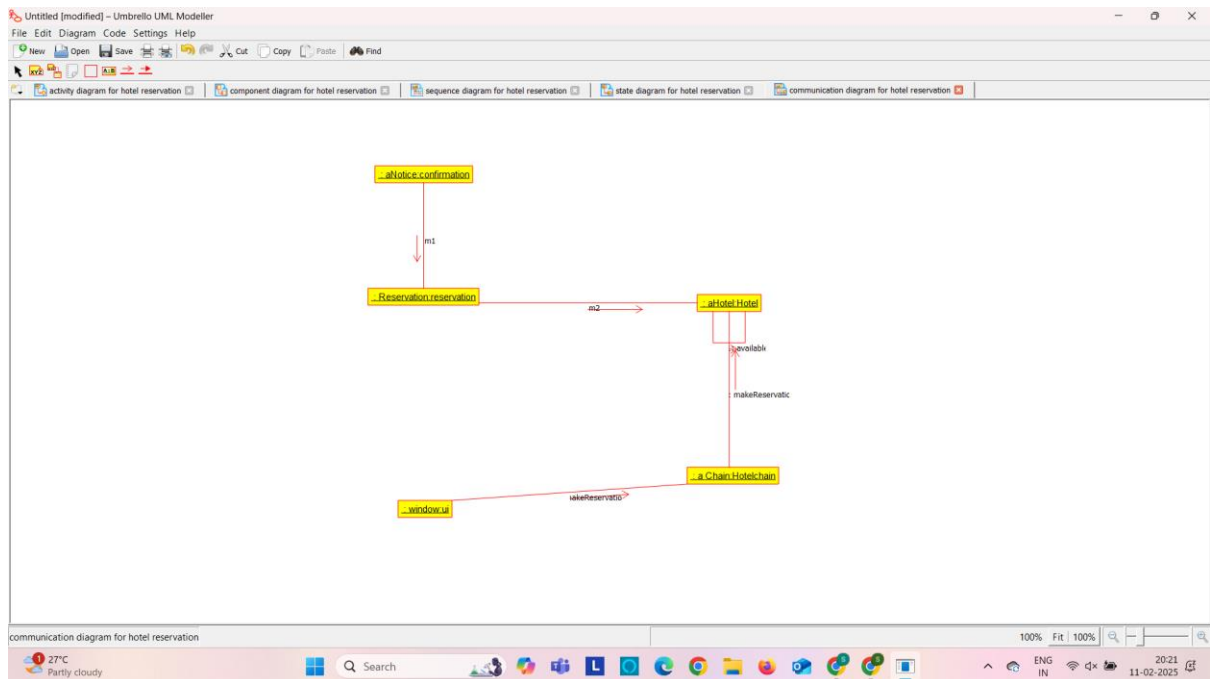
ER diagram



Component diagram



Communication diagram



RESULT:

The **Hotel Reservation System** was successfully designed using UML diagrams, accurately modeling its structure, behavior, and interactions.