EXPERIMENT-3

3) Make an Online Airline Reservation System. The activities of the Online Airline Reservation system are listed below user, admin, LOGIN, MANANGE CLASSES, MANANGE WAITING LIST, MANAGE HOLDS, MANAGE DEADLINES, LOGOUT, using this has a step-by-step process draw a CLASS diagram.

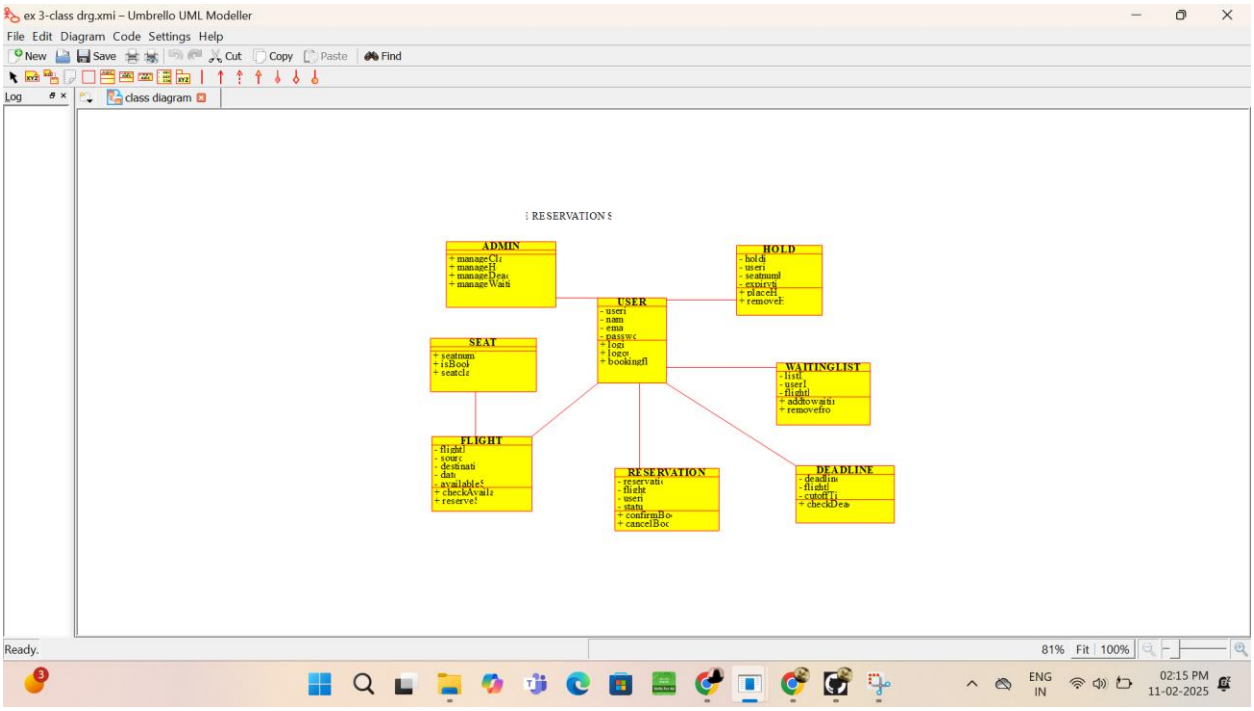
Aim:

To design a Class Diagram for an Online Airline Reservation System, representing the interaction between users, admin, and system functionalities.

Procedure:

1. Identify the Main Classes
    - User: Represents passengers who book flights.
    - Admin: Manages reservations, flight classes, waiting lists, and deadlines.
    - Flight: Contains flight details like departure, arrival, and availability.
    - Reservation: Handles ticket booking and seat allocation.
    - Payment: Manages transactions.
2. Define Attributes and Methods
    - User: username, password, email → login(), logout(), bookFlight()
    - Admin: adminID, permissions → manageClasses(), manageWaitingList(), manageHolds(), manageDeadlines()
    - Flight: flightNumber, departure, arrival, seatAvailability → checkAvailability()
    - Reservation: reservationID, flightDetails, status → confirmBooking(), cancelBooking()
    - Payment: paymentID, amount, method → processPayment()
3. Establish Relationships
    - User → Reservation: (1-to-many) A user can have multiple reservations.
    - Admin → Flight: (1-to-many) Admin manages multiple flights.
    - Reservation → Payment: (1-to-1) Each reservation has a payment transaction.
4. Draw the UML Class Diagram
    - Represent classes as rectangles with attributes and methods.
    - Connect related classes using associations, generalizations, and dependencies.
5. Verify the Diagram
    - Ensure all system functionalities are represented.

Diagram:



Result:

A **Class Diagram** for the **Online Airline Reservation System** was successfully designed, illustrating user, admin, and system interactions.