

EXPERIMENT 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** that models key functionalities such as user authentication, class management, waiting list handling, reservation holds, and deadline tracking.

PROCEDURE:

1. Identify Key Classes

- **User:** Represents customers and administrators accessing the system.
- **Admin:** Handles administrative tasks like managing classes, waiting lists, holds, and deadlines.
- **Login:** Manages authentication for users and admins.
- **Flight Class:** Represents different flight classes (e.g., Economy, Business).
- **Waiting List:** Manages passengers waiting for ticket confirmation.
- **Hold:** Represents reserved tickets for a limited time.
- **Deadline:** Tracks deadlines for reservations or payments.

2. Define Class Attributes and Methods

User Class:

- Attributes: UserID, Name, Email, Password.
- Methods: Register(), Login(), SearchFlight(), BookFlight().

Admin Class:

- Attributes: AdminID, Name, Email, Password.
- Methods: ManageClasses(), ManageWaitingList(), ManageHolds(), ManageDeadlines().

Login Class:

- Attributes: Username, Password, Role (User/Admin).
- Methods: Authenticate(), Logout().

Flight Class:

- Attributes: ClassID, Name (Economy, Business), Availability, Price.

- Methods: UpdateClassDetails(), CheckAvailability().

Waiting List Class:

- Attributes: ListID, FlightID, PassengerID, Status (Waiting/Confirmed).
- Methods: AddToWaitingList(), UpdateStatus().

Hold Class:

- Attributes: HoldID, FlightID, PassengerID, ExpiryTime.
- Methods: CreateHold(), ReleaseHold().

Deadline Class:

- Attributes: DeadlineID, Description, DueDate.
- Methods: SetDeadline(), UpdateDeadline().

3. Define Relationships

- **User** logs in through the **Login** system.
- **Admin** has the privilege to **Manage Classes, Waiting Lists, Holds, and Deadlines**.
- **Flight Class** is related to **Waiting List** and **Hold** for reservation and availability purposes.
- **Deadlines** are managed globally by the **Admin**.

OUTPUT:

CLASS DIAGRAM:



RESULT:

The Class Diagram for the **Online Airline Reservation System** is successfully designed. It includes classes like **User**, **Admin**, **Login**, **Flight Class**, **Waiting List**, **Hold**, and **Deadline**, clearly representing their attributes, methods, and relationships. This diagram effectively models the system's workflow and ensures clarity in its design and functionality.