

# **Airline Reservation System**

## Steps Involved in Building the Project

### Day 1:

#### Database Schema Design

- Created normalized tables including Flights, Customers, Seats, Bookings, and Payments.
- Applied data integrity constraints such as Primary Keys, Foreign Keys, and NOT NULL.
- Inserted sample data to simulate real booking and customer records.

### Day 2:

#### Advanced Database Features

- Developed views for checking flight availability and searching flights by date/destination.
- Implemented stored procedures to automate core operations like booking a ticket.
- Added triggers to update seat status upon booking and cancellation automatically.

### Day 3:

#### Reporting and Analytics

- Wrote SQL queries to generate booking summaries, customer histories, and flight load reports.
- Tested all components with multiple data scenarios to ensure stability and correctness.

- Verified trigger execution and stored procedure outputs using sample datasets.