

#### Problem 4: Airline Reservation

Schema:

- Flights(flight\_id INT, source VARCHAR(30), destination VARCHAR(30), fare DECIMAL(6,2))
- Passengers(pid INT, name VARCHAR(50), flight\_id INT, travel\_date DATE)

Questions:

1. Create both tables with constraints.
2. Insert 3 flights and 5 passenger bookings.
3. List all passengers travelling to 'Delhi'.
4. Show flight-wise passenger count.
5. Increase fare by 10% for flights having more than 2 bookings.

```
CREATE TABLE Flights (  
    flight_id INT PRIMARY KEY,  
    source VARCHAR(30),  
    destination VARCHAR(30),  
    fare DECIMAL(6,2) CHECK (fare >= 0)  
);
```

```
CREATE TABLE Passengers (  
    pid INT PRIMARY KEY,  
    name VARCHAR(50),  
    flight_id INT,  
    travel_date DATE,  
    FOREIGN KEY (flight_id) REFERENCES Flights(flight_id)  
);
```

-- 2. Insert 3 Flights and 5 Passenger Bookings

-- Insert Flights

```
INSERT INTO Flights VALUES  
(1, 'Mumbai', 'Delhi', 5000.00),  
(2, 'Chennai', 'Bangalore', 3500.00),  
(3, 'Kolkata', 'Delhi', 4500.00);
```

-- Insert Passengers

```
INSERT INTO Passengers VALUES  
(101, 'Aman Singh', 1, '2024-04-22'),  
(102, 'Priya Verma', 1, '2024-04-23'),  
(103, 'Ravi Kumar', 2, '2024-04-22'),  
(104, 'Neha Gupta', 3, '2024-04-23'),  
(105, 'Rohit Das', 1, '2024-04-24');
```

-- 3. List All Passengers Travelling to 'Delhi'

```
SELECT p.name, f.destination  
FROM Passengers p  
JOIN Flights f ON p.flight_id = f.flight_id  
WHERE f.destination = 'Delhi';
```

```
-- 4. Show Flight-Wise Passenger Count
SELECT f.flight_id, f.source, f.destination, COUNT(p.pid) AS passenger_count
FROM Flights f
LEFT JOIN Passengers p ON f.flight_id = p.flight_id
GROUP BY f.flight_id, f.source, f.destination;

-- 5. Increase Fare by 10% for Flights Having More Than 2 Bookings
SET SQL_SAFE_UPDATES = 0;
UPDATE Flights
SET fare = fare * 1.10
WHERE flight_id IN (
    SELECT flight_id
    FROM Passengers
    GROUP BY flight_id
    HAVING COUNT(pid) > 2
);
SET SQL_SAFE_UPDATES = 1;
```