Practical - 8

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1. **Create using a single statement a new table called Craft which is an exact copy of (i.e. contains the same rows of data) as the Aircraft table.**

```
mysql> CREATE table Craft
    -> SELECT * FROM Aircraft;
Query OK, 5 rows affected (1.71 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM Craft;
+--------------+---------------------+-----------+
| AircraftType | ADescription        | NoOfSeats |
+--------------+---------------------+-----------+
| DC9          | Advanced Turbo Prop |        43 |
| 737          | Boeing 737-300 Jet  |       300 |
| BF6          | Airbus A330-200     |       105 |
| HS8          | Boeing 747SP        |       250 |
| WM2          | Douglas DC-9-50     |       175 |
+--------------+---------------------+-----------+
5 rows in set (0.00 sec)
```

2. Add the two new aircraft types given in query 4 (Practical Lab 7) to the Craft table. Use appropriate SQL to confirm that the two new aircraft have been inserted correctly.

```
mysql> INSERT INTO Craft Values('S60', 'Shorts-360', 36);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Craft Values('F24', 'Fokker-Friendship', 48);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM Craft;
+--------------+---------------------+-----------+
| AircraftType | ADescription        | NoOfSeats |
+--------------+---------------------+-----------+
| DC9          | Advanced Turbo Prop |        43 |
| 737          | Boeing 737-300 Jet  |       300 |
| BF6          | Airbus A330-200     |       105 |
| HS8          | Boeing 747SP        |       250 |
| WM2          | Douglas DC-9-50     |       175 |
| S60          | Shorts-360          |        36 |
```

```
| F24          | Fokker-Friendship   |        48 |
+--------------+---------------------+-----------+
7 rows in set (0.00 sec)
```

3. Reduce by 4 the seating capacity of all aircraft recorded in the Craft table. Use appropriate SQL to confirm that you have updated the table correctly.

```
mysql> UPDATE Craft
    -> SET NoOfSeats = NoOfSeats - 4;
Query OK, 7 rows affected (0.00 sec)
Rows matched: 7  Changed: 7  Warnings: 0

mysql> SELECT * FROM Craft;
+--------------+---------------------+-----------+
| AircraftType | ADescription        | NoOfSeats |
+--------------+---------------------+-----------+
| DC9          | Advanced Turbo Prop |        39 |
| 737          | Boeing 737-300 Jet  |       296 |
| BF6          | Airbus A330-200     |       101 |
| HS8          | Boeing 747SP        |       246 |
| WM2          | Douglas DC-9-50     |       171 |
| S60          | Shorts-360          |        32 |
| F24          | Fokker-Friendship   |        44 |
+--------------+---------------------+-----------+
7 rows in set (0.00 sec)
```

4. KEEP the Craft table you will need it later! However, make a note of how you could have removed this table at this point without using the Drop statement.

We could have used a Rollback!

5. Drop the APassenger and People tables created in this exercise.

```
mysql> DROP table APassenger;
Query OK, 0 rows affected (0.03 sec)

mysql> DROP table People;
Query OK, 0 rows affected (0.13 sec)
```

6. As noted with query 9 (Practical lab 6), there are no direct flights from Delhi to Goa. To simplify the query required to list the departure times of interconnecting flights create a view called Goa-Link.

```
mysql> CREATE VIEW Goa_Link
    -> AS SELECT DISTINCT B.FlightNo, B.FromAirport, B.ToAirport, B.DepTime, B.ArrTime
    -> FROM Flight A, Flight B
    -> WHERE A.FromAirport = 'Delhi'
    -> AND A.ToAirport = B.FromAirport
    -> AND B.ToAirport = 'Goa';
Query OK, 0 rows affected (0.13 sec)

mysql> SELECT * FROM Goa_Link;
+----------+-------------+-----------+----------+----------+
| FlightNo | FromAirport | ToAirport | DepTime  | ArrTime  |
+----------+-------------+-----------+----------+----------+
| BD582    | Mumbai      | Goa       | 09:00:00 | 11:10:00 |
+----------+-------------+-----------+----------+----------+
1 row in set (0.00 sec)
```

7. List the FlightNo's, Airport's, Departure and Arrival times for flights from 0900 that link Delhi with Goa.

```
mysql> SELECT FromAirport, FlightNo, DepTime, ArrTime
    -> FROM Goa_Link
    -> WHERE DepTime >= '09:00:00';
+-------------+----------+----------+----------+
| FromAirport | FlightNo | DepTime  | ArrTime  |
+-------------+----------+----------+----------+
| Mumbai      | BD582    | 09:00:00 | 11:10:00 |
+-------------+----------+----------+----------+
1 row in set (0.00 sec)
```

8. Let us suppose that we want to allow all passengers to view their itineraries from a visual display at the airport by logging on to the Airline's DBMS under their Passenger ID as held in the Passenger table (the Pid column).

```
mysql> CREATE VIEW PassengerItinerary
    -> AS SELECT I.TicketNo, I.FlightNo, I.FlightDate
    -> FROM Passenger P, Itinerary I
    -> WHERE P.Pid = user
    -> AND P.TicketNo = I.TicketNo;
```

9. Passengers travelling from Indore to Goa must pick up a link flight from Kolkata. Create a View of the interconnecting flights between Indore and Goa.

```
mysql> CREATE VIEW Link
    -> AS SELECT B.FlightNo, B.FromAirport, B.ToAirport, B.DepTime, B.ArrTime
    -> FROM Flight A, Flight B
    -> WHERE A.FromAirport = 'Indore'
    -> AND A.ToAirport = B.FromAirport
    -> AND B.ToAirport = 'Goa';
Query OK, 0 rows affected (0.04 sec)

mysql> SELECT * FROM Link;
+----------+-------------+-----------+----------+----------+
| FlightNo | FromAirport | ToAirport | DepTime  | ArrTime  |
+----------+-------------+-----------+----------+----------+
| BD125    | Kolkata     | Goa       | 10:00:00 | 13:50:00 |
| BD556    | Kolkata     | Goa       | 20:10:00 | 22:40:00 |
+----------+-------------+-----------+----------+----------+
2 rows in set (0.00 sec)
```

10. List, based on an appropriate join with the view created in query 9, the possible arrival times at Goa based upon a departure from Indore on flight BD54.

```
mysql> SELECT L.ArrTime
    -> FROM Flight F, Link L
    -> WHERE F.FlightNo = 'BD54' AND F.FromAirport = 'Indore'
    -> AND L.DepTime > F.ArrTime;
+----------+
| ArrTime  |
+----------+
| 22:40:00 |
+----------+
1 row in set (0.15 sec)
```

11. Remove the View created in query 9 from the database.

```
mysql> DROP VIEW Link;
Query OK, 0 rows affected (0.00 sec)
```