

PRACTICAL – 10

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2K18/MC/008

QUERIES:

1. List the description of the aircraft with the largest seating capacity.

```
mysql> SELECT ADescription
-> FROM Aircraft
-> WHERE NoOfSeats = (SELECT MAX(NoOfSeats) FROM Aircraft);
```

```
+-----+
| ADescription          |
+-----+
| Boeing 737-300 Jet    |
+-----+
1 row in set (0.10 sec)
```

2. List all aircraft that are not allocated to any timetabled Flights.

```
mysql> SELECT *
-> FROM Aircraft
-> WHERE AircraftType NOT IN (SELECT DISTINCT AircraftType FROM
Flight);
```

```
+-----+-----+-----+
| AircraftType | ADescription          | NoOfSeats |
+-----+-----+-----+
| F24          | Fokker-Friendship    | 48        |
+-----+-----+-----+
1 row in set (0.34 sec)
```

3. By use of the IN operator and a sub-query list the names and addresses of passengers with tickets for flight BD80.

```
mysql> SELECT Name, Address
-> FROM Passenger
-> WHERE Pid IN
-> (SELECT Pid FROM Ticket T, Itinerary I
-> WHERE T.TicketNo = I.TicketNo
-> AND I.FlightNo = 'BD80');
```

```
+-----+-----+
| Name          | Address    |
+-----+-----+
| Apoorva Srivastav | Ghaziabad |
| Ritwik Arora      | Rohini     |
+-----+-----+
2 rows in set (0.17 sec)
```

4. List the names and addresses of passengers with Standby Single (SBS) or Standard Return (SDR) tickets for flight BD54.

```
mysql> SELECT Name, Address
-> FROM Passenger
-> WHERE Pid IN
-> (SELECT Pid
-> FROM Ticket T, Itinerary I
-> WHERE T.TicketNo = I.TicketNo
-> AND I.FlightNo = 'BD54'
-> AND I.FareType IN ('SBS', 'SDR'));
```

```
+-----+-----+
| Name          | Address    |
+-----+-----+
| Aiman Siddiqua | Kidwai Nagar |
+-----+-----+
1 row in set (0.10 sec)
```

5. Provide an alternative to the SQL used in query 2.

```
mysql> SELECT A.AircraftType
      -> FROM Aircraft A
      -> LEFT JOIN Flight F ON A.AircraftType = F.AircraftType
      -> WHERE F.AircraftType IS NULL;
```

```
+-----+
| AircraftType |
+-----+
| F24          |
+-----+
1 row in set (0.02 sec)
```

6. Find the AircraftType with the smallest seating capacity:

- using an appropriate aggregate function;

```
mysql> SELECT AircraftType
      -> FROM Aircraft
      -> WHERE NoOfSeats IN (SELECT MIN(NoOfSeats) FROM Aircraft);
```

```
+-----+
| AircraftType |
+-----+
| DC9          |
+-----+
1 row in set (0.00 sec)
```

- without using an aggregate function.

```
mysql> SELECT AircraftType
      -> FROM Aircraft A1
      -> WHERE NoOfSeats < ALL (SELECT A2.NoOfSeats FROM Aircraft A2
WHERE A1.NoOfSeats<> A2.NoOfSeats);
```

```
+-----+
| AircraftType |
+-----+
| DC9          |
+-----+
1 row in set (0.00 sec)
```

7. List the names and addresses of passengers with tickets made up of itineraries with only one flight.

```
mysql> SELECT Name, Address
-> FROM Passenger
-> WHERE Pid IN
-> (SELECT T.Pid
-> FROM Ticket T, Itinerary I
-> WHERE T.TicketNo = I.TicketNo
-> GROUP BY I.TicketNo
-> HAVING COUNT(I.FlightNo) = 1);
```

```
+-----+-----+
| Name          | Address    |
+-----+-----+
| Ritwik Arora   | Rohini     |
| Apoorva Srivastav | Ghaziabad |
| Aksht Jain     | Gohana     |
+-----+-----+
3 rows in set (0.10 sec)
```

8. List the names and addresses of passengers who purchased their Tickets on 18-Apr-2021.

```
mysql> SELECT Name, Address
-> FROM Passenger P, Ticket T
-> WHERE P.Pid = T.Pid
-> AND T.TicketDate = '2021-04-18';
```

```
+-----+-----+
| Name          | Address    |
+-----+-----+
| Samriddhi Banara | Dwarka     |
+-----+-----+
1 row in set (0.00 sec)
```
