Queries

1. ## List of flights in order of their price (increasing) connecting city CJB and DIU on date 17/10/2017 ?

   SELECT Airline_Name AS "Airline Name", Airline_ID AS "Airline ID",Flight_No As "Flight Number",Class AS " Seat Class",Price AS "Ticket Price" FROM Flight_Run_Class NATURAL JOIN Flight NATURAL JOIN Airlines WHERE Journey_Date='17/10/2017' AND Source_Airport_ID='CJB' AND Dest_Airport_ID='DIU' ORDER BY Price;

2. ## Retrieve all flights which flies with given percentage or all seats booked.

   CREATE OR REPLACE VIEW tkt_sold AS SELECT Flight_No,COUNT(*) AS sold, Journey_Date FROM Ticket GROUP BY Flight_No,Journey_Date;

   SELECT Airline_Name AS "Airline Name", Airline_ID AS "Airline ID",Flight.Flight_No As "Flight Number", Source_Airport_ID AS "Source Airport ID",Dest_Airport_ID AS "Destination Airport ID",Journey_Date AS "Date of Journey" FROM tkt_sold JOIN (Flight NATURAL JOIN Airlines NATURAL JOIN Flight_Stop) ON Flight.Flight_No = tkt_sold.Flight_No WHERE (100*sold/total_capacity)>50;

3. ## Count number of flights which connect city DEL and BPM nonstop.

   CREATE OR REPLACE VIEW Connecting as SELECT Flight_No FROM (SELECT Flight_No,count(*) as stops FROM Flight_Stop WHERE Source_Airport_ID = 'DEL' GROUP BY Flight_No) AS S NATURAL JOIN (SELECT Flight_No,count(*) as stops FROM Flight_Stop WHERE Dest_Airport_ID = 'BPM' GROUP BY Flight_No) AS D;

   SELECT Airline_Name AS "Airline Name", Airline_ID AS "Airline ID",Flight_No AS "Flight Number",Dep_Time AS "Departure Time" FROM Flight_Stop NATURAL JOIN Flight NATURAL JOIN Airlines WHERE Source_Airport_ID = 'DEL' AND Dest_Airport_ID='BPM' AND Flight_No IN (SELECT Flight_No FROM Connecting);

4. ## How much money each airlines made on date 25-10-2017.

   CREATE OR REPLACE VIEW Per_Flight AS SELECT Flight_No,Journey_Date,sum(Price) AS Earning FROM Ticket GROUP BY Flight_No,Journey_Date;

   SELECT Airline_Name AS "Airline Name", Airline_ID AS "Airline ID", sum AS "Total Earnings" FROM (SELECT Airline_ID,sum(Earning) FROM Per_Flight NATURAL JOIN Flight WHERE Journey_Date='2017-10-25' GROUP BY Airline_ID) AS Earn NATURAL JOIN Airlines;

5. How much gallons of fuel is used at airports(list sorted) on particular day.

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CREATE OR REPLACE VIEW Flight_Consumption AS SELECT
Flight_No,Total_Dist_Travelled/mileage AS Fuel_Consumed FROM Flight AS F JOIN
Flight_Type as FT ON F.Flight_Type=FT.Flight_Type;

SELECT Airport_ID AS "Airport ID",Airport_Name AS "Airport_Name",cname AS
"City", State AS "State", Country AS "Country", Pincode AS "Pin Code", sum AS "Fuel
Consumption" FROM ( (SELECT Source_Airport_ID,sum(Fuel_consumed) FROM
Flight_Stop NATURAL JOIN Flight_Consumption GROUP BY Source_Airport_ID) AS
Fuel JOIN Airport ON Source_Airport_Id = Airport_ID ) AS B JOIN City ON
City_PinCode = PinCode;
```

6. List all the flights which were delayed more than 2 times in the last 2 month.

Delay in Arrival :

```
CREATE OR REPLACE VIEW Late_Flights AS SELECT Flight_No,Journey_Date
FROM Flight_Run NATURAL JOIN Flight_Stop WHERE (SELECT EXTRACT(epoch FROM
(Act_Arr_Time - Arr_Time))/3600)  > 0;

SELECT Airline_Name AS "Airline Name",Airline_ID AS "Airline ID", Flight_No
AS "Flight Number", Source_Airport_ID AS "Source Airport ID",Dest_Airport_ID AS
"Destination Airport ID", count AS "Delay Count" FROM (SELECT count(*), Flight_No
FROM Late_Flights WHERE (current_date - Journey_Date)::int > 3 GROUP BY
Flight_No) AS A NATURAL JOIN Flight_Stop NATURAL JOIN Flight NATURAL JOIN
Airlines WHERE A.count>1;
```

Delay in Departure :

```
CREATE OR REPLACE VIEW Late_Flights AS SELECT Flight_No,Journey_Date
FROM Flight_Run NATURAL JOIN Flight_Stop WHERE (SELECT EXTRACT(epoch FROM
(Act_Dep_Time - Dep_Time))/3600)  > 0;

SELECT Airline_Name AS "Airline Name",Airline_ID AS "Airline ID", Flight_No
AS "Flight Number", Source_Airport_ID AS "Source Airport ID",Dest_Airport_ID AS
"Destination Airport ID", count AS "Delay Count" FROM (SELECT count(*), Flight_No
FROM Late_Flights WHERE (current_date - Journey_Date)::int > 3 GROUP BY
Flight_No) AS A NATURAL JOIN Flight_Stop NATURAL JOIN Flight NATURAL JOIN
Airlines WHERE A.count>1;
```

7. List the most used terminal of JDH airport in terms of flight boarding in the last month.

> SELECT From_Terminal AS "Terminal Number",count(*) AS "Number of flights" FROM Flight_Stop NATURAL JOIN Flight_Run WHERE Source_Airport_ID='JDH' AND (current_date-Journey_Date)::int > 30 GROUP BY From_Terminal ORDER BY "Number of flights" DESC;

8. Give average ticket price for traveling from city DEL to AMD.

> CREATE OR REPLACE VIEW Cost AS SELECT Flight_No,Source_Airport_ID,Dest_Airport_ID,Price,Class From Flight_Run_Class WHERE Source_Airport_ID='DEL' AND Dest_Airport_ID='AMD';

> SELECT Source_Airport_ID AS "Source Airport ID",Dest_Airport_ID AS "Destination Airport ID", Class AS "Seat Class",Avg(Price) AS "Average Ticket Price" FROM Cost GROUP BY Source_Airport_ID,Dest_Airport_ID,Class;

9. List of all foreign passengers travelling between 01-10-2017 to 30-10-2017.

> SELECT name AS "Passenger Name",sex AS "Sex",country AS "Country",phone_no AS "Contact Number" from passenger JOIN ticket ON passenger.ID_proof_no = ticket.passenger_id and passenger.country = ticket.pass_country WHERE (Journey_Date - '2017-10-01')::int >= 0 AND ('2017-10-30'- Journey_Date)::int >= 0 and country != 'India';

10. List all flights for round trip from city CJB to DIU on date 17-10-2017 and from city DIU to CJB on date 19-10-2017.

> SELECT Airline_Name AS "Airline Name",Airline_ID AS "Airline ID",Flight_No AS "Flight Number", Dep_Time AS "Departure Time", Class AS "Seat Class" FROM Flight_Stop NATURAL JOIN Flight_Run_Class NATURAL JOIN Flight NATURAL JOIN Airlines WHERE Source_Airport_ID='CJB' AND Dest_Airport_ID='DIU' and Journey_Date = '2017-10-17';

> SELECT Airline_Name AS "Airline Name",Airline_ID AS "Airline ID",Flight_No AS "Flight Number", Dep_Time AS "Departure Time", Class AS "Seat Class" FROM Flight_Stop NATURAL JOIN Flight_Run_Class NATURAL JOIN Flight NATURAL JOIN Airlines WHERE Source_Airport_ID='DIU' AND Dest_Airport_ID='CJB' and Journey_Date = '2017-10-19';