1 ) represent the ‘book-date’ column in ‘yyyy-mmm-dd’format using bookings table

Expected output:book\_ref,book\_date(in ‘yyyy-mmm-dd’),total\_amount

SELECT

    book\_ref,

    TO\_CHAR(book\_date, 'YYYY-Mon-DD') AS book\_date,

    total\_amount

FROM

    bookings;

2) get the following column in exact sequence ,

expected sequence output;ticket no, boarding no,seat no,passenger\_id,passenger name

select

t1.ticket\_no,

t1.boarding\_no,

t1.seat\_no,

t2.passenger\_id,

t2.passenger\_name

from BOARDING\_PASSES t1

join TICKETS t2 on t1.ticket\_no=t2.ticket\_no

3) write a query to find the seat number which is least allocated among all the seats

Select

seat\_no

from BOARDING\_PASSES

group by 1

order by count(\*) asc

offset 0 rows

fetch next 1 rows only

4) in the database,identify the month wise highest paying passenger name and passenger\_id

Output:month\_name(mmm-yy format), passenger name and passenger\_id and total\_amount

SELECT

    TO\_CHAR(b.book\_date, 'Mon-YY') AS month\_name,

    t.passenger\_id,

    t.passenger\_name,

    SUM(b.total\_amount) AS total\_amount

FROM

    Bookings b

JOIN

    Tickets t ON b.book\_ref = t.book\_ref

GROUP BY

    month\_name, t.passenger\_id, t.passenger\_name

ORDER BY

    month\_name, total\_amount DESC

LIMIT 1;

5)in the database,identify the month wise least paying passenger name and passenger\_id

Output:month\_name(mmm-yy format), passenger name and passenger\_id and total\_amount

SELECT

    TO\_CHAR(b.book\_date, 'Mon-YY') AS month\_name,

    t.passenger\_id,

    t.passenger\_name,

    SUM(b.total\_amount) AS total\_amount

FROM

    Bookings b

JOIN

    Tickets t ON b.book\_ref = t.book\_ref

GROUP BY

    month\_name, t.passenger\_id, t.passenger\_name

ORDER BY

    month\_name, total\_amount ASC

LIMIT 1;

6)identify the travel details of the flights having return journey more than 1 flight

Output:passenger\_id,passenger\_name,ticket\_no,flight\_count

SELECT

    t.passenger\_id,

    t.passenger\_name,

    t.ticket\_no,

    COUNT(bp.flight\_id) AS flight\_count

FROM

    Tickets t

JOIN

    Boarding\_passes bp ON t.ticket\_no = bp.ticket\_no

GROUP BY

    t.passenger\_id, t.passenger\_name, t.ticket\_no

HAVING

    COUNT(bp.flight\_id) > 1;

7)how many tickets are there without boarding-passes

Output:just one no is required

SELECT COUNT(\*) AS Tickets\_without\_boarding\_passes

FROM tickets

WHERE ticket\_no NOT IN (SELECT ticket\_no FROM boarding\_passes);

8) **identify the details of longest fight using fights table**

**Expected output:flight\_no,departure airport,arrival\_airport,aircraft-code and durations**

SELECT

    flight\_no,

    departure\_airport,

    arrival\_airport,

    aircraft\_code,

    ( actual\_arrival-actual\_departure ) AS duration

FROM

    flights

ORDER BY

    duration DESC

LIMIT 1;

9) **identify details of all morning flights morning means between 6 to11 am using fights table Expected output:flight\_id,flight no,scheduled departure,scheduled arrival and timing**

SELECT

    flight\_id,

    flight\_no,

    scheduled\_departure,

    scheduled\_arrival,

    (scheduled\_arrival - scheduled\_departure) AS timings

FROM

    flights

WHERE

    EXTRACT(HOUR FROM scheduled\_departure) BETWEEN 6 AND 10;

10)identify the earliest morning flight available from every airport early morning 2 to 6 am

 SELECT

    f.flight\_id,

    f.flight\_no,

    f.scheduled\_departure,

    f.scheduled\_arrival,

    f.departure\_airport

FROM

    flights f

WHERE

    f.scheduled\_departure = (

        SELECT

            MIN(scheduled\_departure)

        FROM

            flights

        WHERE

            departure\_airport = f.departure\_airport

            AND TIME(scheduled\_departure) BETWEEN '02:00:00' AND '06:00:00'

    );

11) find list of airport codes in the Europe/Moscow timezone

SELECT airport\_code

FROM airports

WHERE timezone = 'Europe/Moscow';

12 ) write a query to get the count of seat in various fare condition for every air craft code?.expected output ; aircraft code,fare conditions,seat count

SELECT aircraft\_code, fare\_conditions, COUNT(seat\_no) AS seat\_count

FROM seats

GROUP BY aircraft\_code, fare\_conditions

order by aircraft\_code

;

13) HOW MANY AIRCRAFT CODES HAVE ATLEAST ONE BUSINESS CLASS SEAT EXPECTED OUTPUT ;COUNT OF AIRCRAFT CODES

SELECT COUNT (DISTINCT aircraft\_code)  AS aircraft\_code\_COUNT

FROM SEATS

WHERE fare\_conditionS LIKE '%Business%';

14)findout the name of the airport having maximum no of departure flight

SELECT departure\_airport

FROM flights

GROUP BY departure\_airport

ORDER BY COUNT(departure\_airport) DESC

LIMIT 1;

15)find out the name of the airport having least no of scheduled departure flights

SELECT departure\_airport

FROM flights

GROUP BY departure\_airport

ORDER BY COUNT(scheduled\_departure) ASC

LIMIT 1;

16 )HOW MANY FLIGHTS FROM “DME’ AIRPORTS DON’T HAVE ACTUAL DEPARTURE? EXPECTED OUTPUT =FLIGHT COUNT

SELECT COUNT(\*) AS flight\_count

FROM flights

WHERE departure\_airport = 'DME' AND actual\_departure IS NULL;

17) identify flights\_having range between 3000 and 6000

Output: fl;ight\_no,aircraft\_code,range

SELECT flight\_no, aircraft\_code, flight\_id AS range

FROM flights

WHERE flight\_id BETWEEN 3000 AND 6000;

18 ) WRITE A Query to get the count of flights flying between urs and kuf

SELECT COUNT(\*) AS flight\_count

FROM flights

WHERE departure\_airport = 'URS' AND arrival\_airport = 'KUF';

19 )write a query to get the count of flights flying from either from NOZ and KRR

SELECT COUNT(\*) AS flight\_count

FROM flights

WHERE departure\_airport IN ('NOZ', 'KRR');

20)WRITE A QUERY TO GET THE COUNT OF FLIGHTS FLYING FROM KZN,DME,NBC,NJC,GDX,SGC,VKO,ROV

SELECT departure\_airport, COUNT(\*) AS count\_of\_flights

FROM flights

WHERE departure\_airport IN ('KZN', 'DME', 'NBC', 'NJC', 'GDX', 'SGC', 'VKO', 'ROV')

GROUP BY departure\_airport;

21) WRITE A QUERY TO EXRACT FLIGHTS DETAILS HAVING RANGE BETWEEN 3000 AND 6000 AND FLYING FROM DME

EXPECTED OUTPUT FLIGHT\_NO,.AIRCRAFT\_CODE,RANGE,DEPARTURE AIRPORT

SELECT

    f.flight\_no,

    f.aircraft\_code,

    a.range,

    f.departure\_airport

FROM

    flights f

JOIN

    aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE

    a.range BETWEEN 3000 AND 6000

    AND f.departure\_airport = 'DME'

22) find out the list of flight\_ids which are using aircraft models ‘airbus’company and got cancelled or delayed

Output expected; flight\_id,aircraft \_model

 SELECT f.flight\_id, a.model as aircraft\_model

FROM flights f

INNER JOIN aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE a.model LIKE '%Airbus%' AND (f.status = 'Cancelled' OR f.status = 'Delayed');

23) find out the list of flight\_ids which are using aircraft models ‘Boeing’company and got cancelled or delayed

Output expected; flight\_id,aircraft \_model

SELECT f.flight\_id, a.model as aircraft\_model

FROM flights f

INNER JOIN aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE a.model LIKE '%Boeing%' AND (f.status = 'Cancelled' OR f.status = 'Delayed');

24 )which airport name has most cancelled flight arriving

SELECT arrival\_airport

FROM flights

WHERE status = 'Cancelled'

GROUP BY arrival\_airport

LIMIT 1;

25) Identify flight\_ids which are using "Airbus" aircrafts.

expected output: flight\_id,model

SELECT flight\_id, model as aircraft\_model

FROM flights NATURAL JOIN aircrafts

WHERE model LIKE '%Airbus%';

26) identify date wise last flight id flying from every airport

Output:flight-id,flight\_no,scheduled\_departure,departure\_airport

WITH LastFlights AS (

    SELECT

        flight\_id,

        flight\_no,

        scheduled\_departure,

        departure\_airport,

        ROW\_NUMBER() OVER (PARTITION BY departure\_airport ORDER BY scheduled\_departure DESC) AS rn

    FROM

        flights

)

SELECT

    flight\_id,

    flight\_no,

    scheduled\_departure,

    departure\_airport

FROM

    LastFlights

WHERE

    rn = 1;

27)identify list of customers who will get refund due to cancellation of the flight and how much amount they get

SELECT

   distinct( t.passenger\_name),

    b.total\_amount AS total\_refund

FROM

    Tickets t

INNER JOIN

    Bookings b ON t.book\_ref = b.book\_ref

INNER JOIN

    Flights f ON t.book\_ref = b.book\_ref

WHERE

    f.status = 'Cancelled';

28)identify date wise first cancelled flight-id flying for every airport

Outputflight\_id,flight\_no,scheduled\_departure,departure\_airport

WITH CancelledFlights AS (

    SELECT

        flight\_id,

        flight\_no,

        scheduled\_departure,

        departure\_airport,

        ROW\_NUMBER() OVER (PARTITION BY departure\_airport ORDER BY scheduled\_departure) AS rn

    FROM flights

    WHERE status = 'Cancelled'

)

SELECT

    flight\_id,

    flight\_no,

    scheduled\_departure,

    departure\_airport

FROM CancelledFlights

WHERE rn = 1;

29) identify list of Airbus flight\_ids which got cancelled. output needed is flight\_id

SELECT f.flight\_id

FROM flights f

INNER JOIN aircrafts a ON f.aircraft\_code = a.aircraft\_code

WHERE a.model = 'Airbus' AND f.status = 'Cancelled';

30) identify list of flights ids having highest range

Output:flight\_id and range

SELECT f.flight\_id, r.range

FROM flights f

JOIN aircrafts r ON f.aircraft\_code = r.aircraft\_code

WHERE r.range = (SELECT MAX(range) FROM aircrafts);