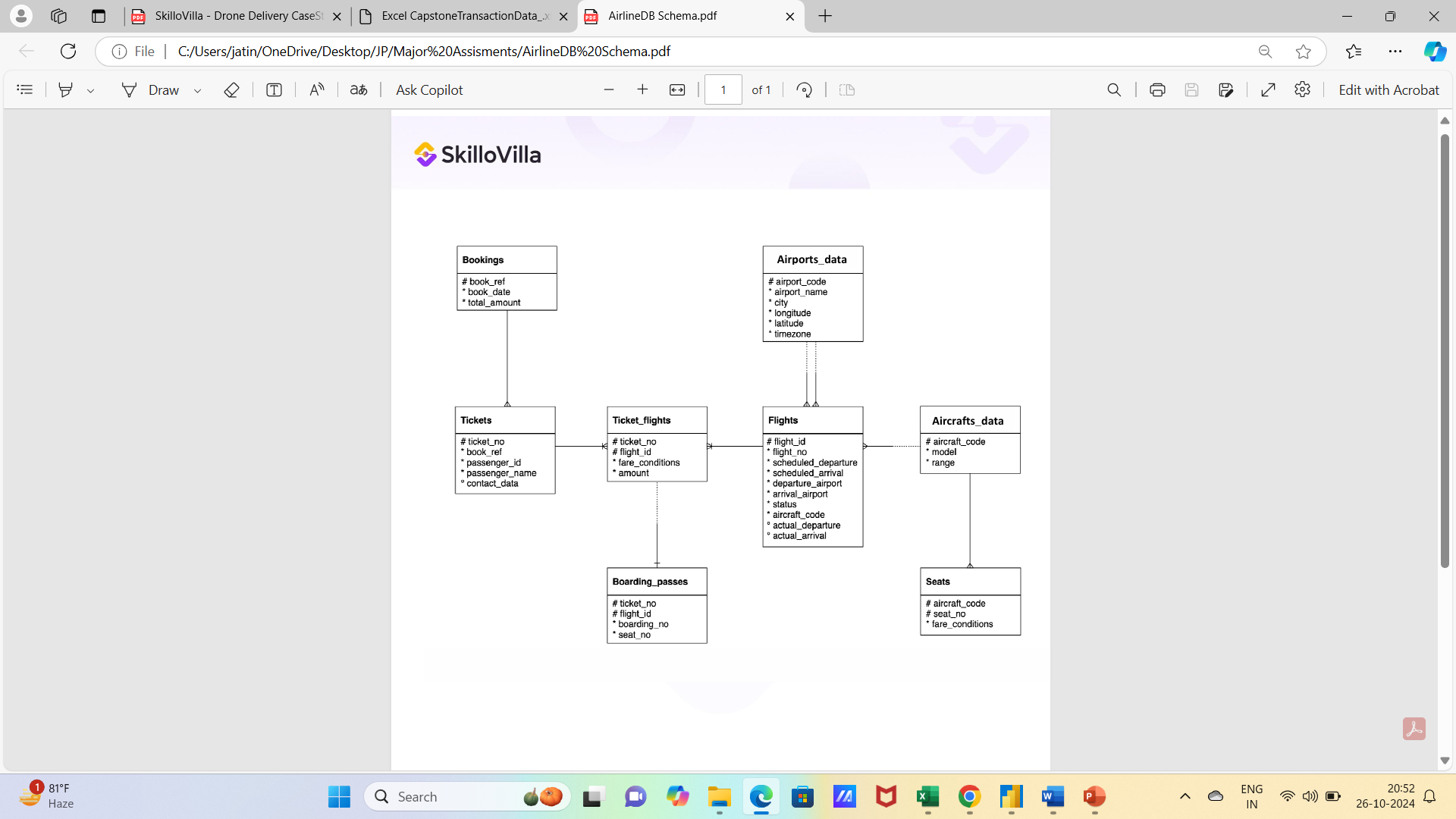
**

**Attempt the following Questions-**

1. ***Represent the “book\_date” column in “yyyy-mmm-dd” format using Bookings table***

*Expected output: book\_ref, book\_date (in “yyyy-mmm-dd” format) , total amount*

**Answer:**

SELECT

    book\_ref,

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

    total\_amount

FROM

    Bookings

1. **Get the following columns in the exact same sequence.**

Expected columns in the output: ticket\_no, boarding\_no, seat\_number, passenger\_id, passenger\_name.

**Answer:**

select

    t.ticket\_no,

    boarding\_no,

    seat\_no,

    passenger\_id,

    passenger\_name

from TICKETS t

inner join BOARDING\_PASSES bp

on t.ticket\_no = bp.ticket\_no

1. **Write a query to find the seat number which is least allocated among all the seats?**

**Answer:**

with t1 as

(select

    seat\_no,

    count(ticket\_no) allocation\_count

from BOARDING\_PASSES

group by 1)

select

    seat\_no,

    allocation\_count

from t1

where allocation\_count = (select

min(allocation\_count) as allocation\_count

from t1)

1. ***In the database, identify the month wise highest paying passenger name and passenger id.***

Expected output: Month\_name(“mmm-yy” format), passenger\_id, passenger\_name and total amount

**Answer:**

with t1 as

(select

    to\_char(book\_date, 'mon-yy') month\_name,

    passenger\_id,

    passenger\_name,

    total\_amount,

    rank() over(partition by  to\_char(book\_date, 'mon-yy') order by total\_amount desc)  as rank

from bookings b

inner join tickets t

on b.book\_ref = t.book\_ref

group by 1,2,3,4)

select

    month\_name,

    passenger\_id,

    passenger\_name,

    total\_amount

from t1

where rank = 1

1. ***In the database, identify the month wise least paying passenger name and passenger id?***

Expected output: Month\_name(“mmm-yy” format), passenger\_id, passenger\_name and total amount

**Answer:**

with t1 as

(select

    to\_char(book\_date, 'mon-yy') month\_name,

    passenger\_id,

    passenger\_name,

    total\_amount,

    rank() over(partition by  to\_char(book\_date, 'mon-yy') order by total\_amount asc)  as rank

from bookings b

inner join tickets t

on b.book\_ref = t.book\_ref

group by 1,2,3,4)

select

    month\_name,

    passenger\_id,

    passenger\_name,

    total\_amount

from t1

where rank = 1

1. **Identify the travel details of non stop journeys or return journeys (having more than 1 flight).**

Expected Output: Passenger\_id, passenger\_name, ticket\_number and flight count.

**Answer:**

s select

    t.passenger\_id,

    t.passenger\_name,

    t.ticket\_no,

    count(f.flight\_id) as flight\_count

from TICKETS t

inner join TICKET\_FLIGHTS tf

on t.ticket\_no = tf.ticket\_no

inner join FLIGHTS f

on tf.flight\_id = f.flight\_id

group by 1,2,3

having count(f.flight\_id) > 1

1. **How many tickets are there without boarding passes?**

Expected Output: just one number is required.

**Answer:**

SELECT COUNT(t.ticket\_no) AS tickets\_without\_boarding\_pass

FROM Tickets t

LEFT JOIN Boarding\_Passes bp ON t.ticket\_no = bp.ticket\_no

where bp.ticket\_no is null

1. **Identify details of the longest flight (using flights table)?**

Expected Output: Flight number, departure airport, arrival airport, aircraft code and durations.

**Answer:**

with duration\_table as

(select

    flight\_no,

    departure\_airport,

    arrival\_airport,

    aircraft\_code,

    actual\_arrival-actual\_departure as duration,

    rank() over(order by actual\_arrival-actual\_departure desc) as duration\_rank

from flights

where actual\_arrival-actual\_departure is not null)

select

    flight\_no,

    departure\_airport,

    arrival\_airport,

    aircraft\_code,

    duration

from duration\_table

where duration\_rank = 1

1. **Identify details of all the morning flights (morning means between 6AM to 11 AM, using flights table)?**

Expected output: flight\_id, flight\_number, scheduled\_departure, scheduled\_arrival and timings.

**Answer:**

select

    flight\_id,

    flight\_no,

    scheduled\_departure,

    scheduled\_arrival,

    to\_char(scheduled\_departure,'HH24')||':'||to\_char(scheduled\_departure,'MI')||':'||to\_char(scheduled\_departure,'SS') as Timings

from flights

where to\_char(scheduled\_departure,'HH24')||':'||to\_char(scheduled\_departure,'MI')||':'||to\_char(scheduled\_departure,'SS')

between '06:00:00' and '11:00:00'

1. **Identify the earliest morning flight available from every airport.**

Expected output: flight\_id, flight\_number, scheduled\_departure, scheduled\_arrival, departure airport and timings.

**Answer:**

Select

    f.flight\_id,

    f.flight\_no,

    f.scheduled\_departure,

    f.departure\_airport,

    to\_char(f.scheduled\_departure,'HH24')||':'||to\_char(f.scheduled\_departure,'MI')||':'||to\_char(f.scheduled\_departure,'SS') as Timings

From flights f

Join (

    Select

    departure\_airport,

    Min(scheduled\_departure) AS min\_scheduled\_departure

    From flights

    Group by departure\_airport) min\_flights

on f.departure\_airport = min\_flights.departure\_airport

and f.scheduled\_departure = min\_flights.min\_scheduled\_departure

1. **Questions:** **Find list of airport codes in Europe/Moscow timezone**

Expected Output: Airport\_code.

**Answer:**

select

    airport\_code

from airports

where timezone = 'Europe/Moscow'

1. **Write a query to get the count of seats in various fare condition for every aircraft code?**

Expected Outputs: Aircraft\_code, fare\_conditions ,seat count

**Answer:**

select

    aircraft\_code,

    fare\_conditions,

    count(seat\_no)

from seats

group by 1,2

order by 1,2

1. **How many aircrafts codes have at least one Business class seats?**

Expected Output : Count of aircraft codes

**Answer:**

with t1 as

(SELECT

    aircraft\_code,

    count(fare\_conditions)

from SEATS

where fare\_conditions = 'Business'

group by 1)

select count (\*)

from t1

1. **Find out the name of the airport having maximum number of departure flight**

Expected Output : Airport\_name

**Answer:**

with t1 as

(select

    airport\_name,

    count(\*)

from airports ap

inner join flights fl

on ap.airport\_code = fl.departure\_airport

group by 1

order by 2 desc

limit 1)

select airport\_name

from t1

1. **Find out the name of the airport having least number of scheduled departure flights**

Expected Output : Airport\_name

**Answer:**

with t1 as

(select

    airport\_name,

    count(scheduled\_departure)

from airports ap

inner join flights fl

on ap.airport\_code = fl.departure\_airport

group by 1

order by 2 asc

limit 1)

select airport\_name

from t1

1. **How many flights from ‘DME’ airport don’t have actual departure?**

Expected Output : Flight Count

**Answer:**

select

    count(flight\_id)

from flights

where departure\_airport = 'DME' and actual\_departure is null

1. **Identify flight ids having range between 3000 to 6000**

Expected Output : Flight\_Number , aircraft\_code, ranges

**Answer:**

select

    flight\_no,

    fl.aircraft\_code,

    range as ranges

from flights fl

inner join aircrafts af

on fl.aircraft\_code = af.aircraft\_code

where range between 3000 and 6000

1. **Write a query to get the count of flights flying between URS and KUF?**

Expected Output : Flight\_count

**Answer:**

select

    count(flight\_id)

from flights

where departure\_airport = 'URS' and

arrival\_airport = 'KUF'

1. **Write a query to get the count of flights flying from either from NOZ or KRR?**

Expected Output : Flight count

**Answer:**

select

    count(flight\_id)

from flights

where departure\_airport in ('NOZ', 'KRR')

1. **Write a query to get the count of flights flying from KZN,DME,NBC,NJC,GDX,SGC,VKO,ROV**

Expected Output : Departure airport ,count of flights flying from these airports.

**Answer:**

select

    departure\_airport,

        count(flight\_id)

from flights

where departure\_airport in ('KZN','DME','NBC','NJC','GDX','SGC','VKO','ROV')

group by 1

1. **Write a query to extract flight details having range between 3000 and 6000 and flying from DME**

Expected Output :Flight\_no,aircraft\_code,range,departure\_airport

**Answer:**

select

    flight\_no,

    fl.aircraft\_code,

    range,

    departure\_airport

from flights fl

inner join aircrafts af

on fl.aircraft\_code = af.aircraft\_code

where range between 3000 and 6000 and departure\_airport = 'DME'

1. **Find the list of flight ids which are using aircrafts from “Airbus” company and got cancelled or delayed**

Expected Output : Flight\_id,aircraft\_model

**Answer:**

 select

    flight\_id,

    model

from FLIGHTS f

inner join AIRCRAFTS a

on f.aircraft\_code = a.aircraft\_code

where status in ('Cancelled','Delayed') and model like '%Airbus%'

1. **Find the list of flight ids which are using aircrafts from “Boeing” company and got cancelled or delayed**

Expected Output : Flight\_id,aircraft\_model

**Answer:**

 select

    flight\_id,

    model

from FLIGHTS f

inner join AIRCRAFTS a

on f.aircraft\_code = a.aircraft\_code

where status in ('Cancelled','Delayed') and model like '%Boeing%'

1. **Which airport(name) has most cancelled flights (arriving)?**

Expected Output : Airport\_name

**Answer:**

 with cancellation\_count as

(select

    airport\_name,

    count(flight\_id),

    rank () over(order by count(flight\_id) desc)

from FLIGHTS f

inner join AIRPORTS a

on f.arrival\_airport = a.airport\_code

where status = 'Cancelled'

group by 1)

select

    airport\_name

from cancellation\_count

where rank = 1

1. ***Identify flight ids which are using “Airbus aircrafts”***

*Expected Output : Flight\_id,aircraft\_model*

**Answer:**

select

    flight\_id,

    model

from FLIGHTS f

inner join AIRCRAFTS a

on f.aircraft\_code = a.aircraft\_code

where model like '%Airbus%'

1. ***Identify date-wise last flight id flying from every airport?***

*Expected Output: Flight\_id,flight\_number,schedule\_departure,departure\_airport*

**Answer:**

SELECT

    f.flight\_id,

    f.flight\_no,

    f.scheduled\_departure,

    f.departure\_airport

FROM flights f

JOIN (

    SELECT

    departure\_airport,

    MAX(scheduled\_departure) AS max\_scheduled\_departure

    FROM flights

    GROUP BY departure\_airport) max\_flights

ON f.departure\_airport = max\_flights.departure\_airport

AND f.scheduled\_departure = max\_flights.max\_scheduled\_departure

1. ***Identify list of customers who will get the refund due to cancellation of the flights and how much amount they will get?***

*Expected Output : Passenger\_name,total\_refund.*

**Answer:**

with booking\_details as

(select

    passenger\_name,

    f.flight\_id,

    total\_amount

from tickets t

inner join bookings b

on t.book\_ref = b.book\_ref

inner join BOARDING\_PASSES bp

on t.ticket\_no = bp.ticket\_no

inner join FLIGHTS f

on bp.flight\_id = f.flight\_id

order by 1)

select

    passenger\_name,

    total\_amount as total\_refund

from booking\_details bd

inner join FLIGHTS f

on bd.flight\_id = f.flight\_id

where status = 'Cancelled'

1. ***Identify date wise first cancelled flight id flying for every airport?***

*Expected Output : Flight\_id,flight\_number,schedule\_departure,departure\_airport*

**Answer:**

SELECT

    f.flight\_id,

    f.flight\_no,

    f.scheduled\_departure,

    f.departure\_airport

FROM flights f

JOIN (

    SELECT

    departure\_airport,

    min(scheduled\_departure) AS min\_scheduled\_departure

    FROM flights

    where status = 'Cancelled'

    GROUP BY departure\_airport) min\_flights

ON f.departure\_airport = min\_flights.departure\_airport

AND f.scheduled\_departure = min\_flights.min\_scheduled\_departure

1. ***Identify list of Airbus flight ids which got cancelled.***

*Expected Output : Flight\_id*

**Answer:**

select

    flight\_id

from FLIGHTS f

inner join AIRCRAFTS a

on f.aircraft\_code = a.aircraft\_code

where status = 'Cancelled' and model like '%Airbus%'

1. ***Identify list of flight ids having highest range.***

*Expected Output : Flight\_no, range*

**Answer:**

with t1 as

(select

    flight\_no,

    max(range) as range,

    rank() over(order by max(range) desc) range\_rank

from FLIGHTS f

inner join AIRCRAFTS a

on f.aircraft\_code = a.aircraft\_code

group by 1)

select

    flight\_no,

    range

from t1

where range\_rank = 1