

# FIS

NAME: ANKITA VISHNU DAHIPHALE

EMPLOYEE ID: E5685578

TABLE LIST:

```
mysql> show tables;
+-----+
| Tables_in_fisglobal |
+-----+
| air_credit_card_details |
| air_flight |
| air_flight_details |
| air_passenger_profile |
| air_ticket_info |
+-----+
5 rows in set (0.01 sec)
```

## TABLE DATA

AIR\_CREDIT\_CARD\_DETAILS

```
mysql> select * from air_credit_card_details;
+-----+-----+-----+-----+-----+
| profile_id | card_number | card_type | expiration_month | expiration_year |
+-----+-----+-----+-----+-----+
| 1 | 722098 | debit | 6 | 2022 |
| 2 | 752362 | credit | 1 | 2022 |
| 1 | 765432 | credit | 2 | 2022 |
| 3 | 654378 | debit | 6 | 2022 |
| 4 | 625417 | debit | 2 | 2022 |
| 5 | 865478 | debit | 3 | 2022 |
| 6 | 789563 | credit | 4 | 2022 |
| 2 | 543267 | credit | 8 | 2022 |
| 1 | 256369 | debit | 1 | 2022 |
+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

AIR\_FLIGHT

```
mysql> select * from air_flight;
+-----+-----+-----+-----+-----+-----+-----+-----+
| flight_id | airline_id | airline_name | from_location | to_location | departure_time | arrival_time | duration | total_seats |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7771 | AIR70 | air01 | Hyderabad | Chennai | 06:30:00 | 07:15:00 | 00:45:00 | 100 |
| 7772 | AIR71 | air02 | Chennai | Hyderabad | 08:00:00 | 09:00:00 | 01:00:00 | 200 |
| 7773 | AIR72 | air03 | Kolkata | Chennai | 11:30:00 | 13:00:00 | 01:30:00 | 100 |
| 7774 | AIR73 | air04 | Chennai | Delhi | 08:00:00 | 10:00:00 | 02:00:00 | 100 |
| 7775 | AIR74 | air05 | Kolkata | Delhi | 00:00:00 | 02:00:00 | 02:00:00 | 100 |
| 7776 | AIR75 | air01 | Chennai | Kolkata | 14:00:00 | 15:00:00 | 01:00:00 | 100 |
| 7777 | AIR70 | air02 | Pune | Chennai | 18:00:00 | 19:05:00 | 01:05:00 | 100 |
| 7778 | AIR76 | air03 | Delhi | Pune | 19:00:00 | 21:00:00 | 02:00:00 | 200 |
| 7779 | AIR77 | air07 | Kolkata | Pune | 05:00:00 | 05:45:00 | 00:45:00 | 200 |
+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

## AIR\_FLIGHT\_DETAILS

```
mysql> select * from air_flight_details;
```

flight_id	flight_departure_date	price	available_seats
7771	2022-02-14	1000.00	10
7772	2022-03-15	5000.00	0
7773	2022-02-05	3000.00	32
7774	2022-04-07	2000.00	12
7775	2022-04-05	3800.00	3
7776	2022-05-25	3500.00	10
7777	2022-03-14	8000.00	2
7778	2022-06-15	1500.00	0
7779	2022-04-02	3000.00	14

```
9 rows in set (0.00 sec)
```

## AIR\_PASSENGER\_PROFILE

```
mysql> select * from air_passenger_profile;
```

profile_id	password	first_name	last_name	address	mobile_number	email_id
1	Pass1	Ankita	Singh	Street 21, Near Bus Stop-Hyderabad-34765	7777777777	ank@gmail.com
2	Pass2	Sneh	Chawala	Sector 10, Technopolis-Kolkata-700102	9876535467	sneh@gmail.com
3	Pass3	Jay	Sharma	House No. 3, Anna Nagar-Pune-452314	7564783644	jay@gmail.com
4	Pass4	Mona	Mishra	21 Shivaji Park-Delhi-144985	8763546789	mona@gmail.com
5	Pass5	Neha	Kapoor	77, South Lane-Chennai-144587	9876543234	neha@gmail.com

```
5 rows in set (0.00 sec)
```

## AIR\_TICKET\_INFO

```
mysql> select * from air_ticket_info;
```

ticket_id	profile_id	flight_id	flight_departure_date	status
1	1	7778	2022-05-06	delayed
2	5	7779	2022-04-03	on time
3	4	7771	2022-04-02	on time
4	2	7777	2022-06-15	on time
5	3	7776	2022-03-14	on time
6	1	7775	2022-03-15	on time
7	4	7772	2022-02-06	delayed
8	2	7778	2022-06-05	on time
9	3	7773	2022-03-15	on time
10	1	7775	2022-05-25	on time

```
10 rows in set (0.00 sec)
```

## AIRLINE QUERIES SOLUTIONS:

1. Write a query to display the average monthly ticket cost for each flight in ABC Airlines. The query should display the Flight\_Id, From\_location, To\_Location, Month Name as "Month\_Name" and average price as "Average\_Price". Display the records sorted in ascending order based on flight id and then by Month Name.

**Solution :**

```
select a.flight_id,a.from_location,a.to_location, monthname(b.flight_departure_date) as  
month_name, avg(price) as average from air_flight a join air_flight_details b on a.flight_id=b.flight_id  
where a.airline_name='air01' group by a.flight_id,month_name order by a.flight_id,month_name;
```

```
mysql> select a.flight_id,a.from_location,a.to_location, monthname(b.flight_departure_date) as month_name, avg(price)  
as average from air_flight a join air_flight_details b on a.flight_id=b.flight_id where a.airline_name='air01' group  
by a.flight_id,month_name order by a.flight_id,month_name;  
+-----+-----+-----+-----+-----+  
| flight_id | from_location | to_location | month_name | average |  
+-----+-----+-----+-----+-----+  
| 7771      | Hyderabad    | Chennai    | February   | 1000.000000 |  
| 7776      | Chennai       | Kolkata     | May        | 3500.000000 |  
+-----+-----+-----+-----+-----+  
2 rows in set (0.01 sec)
```

2. Write a query to display the number of flight services between locations in a month. The Query should display From\_Location, To\_Location, Month as "Month\_Name" and number of flight services as "No\_of\_Services". Hint: The Number of Services can be calculated from the number of scheduled departure dates of a flight. The records should be displayed in ascending order based on From\_Location and then by To\_Location and then by month name.

**Solution:**

```
select a.from_location,a.to_location,monthname(b.flight_departure_date) as month_name,  
count(b.flight_departure_date) as no_of_services from air_flight a join air_flight_details b on  
a.flight_id=b.flight_id group by month_name order by a.from_location, a.to_location,month_name;
```

```
mysql> select a.from_location,a.to_location,monthname(b.flight_departure_date) as month_name, count(b.flight_departure_date) as no_of_services from air_flight a join air_flight_details b on a.flight_id=b.flight_id group by month_name order by a.from_location,a.to_location,month_name;
```

from_location	to_location	month_name	no_of_services
Chennai	Delhi	April	3
Chennai	Hyderabad	March	2
Chennai	Kolkata	May	1
Delhi	Pune	June	1
Hyderabad	Chennai	February	2

5 rows in set (0.01 sec)

3. Write a query to display the customer(s) who has/have booked least number of tickets in ABC Airlines. The Query should display profile\_id, customer's first\_name, Address and Number of tickets booked as "No\_of\_Tickets" Display the records sorted in ascending order based on customer's first name.

**Solution:**

```
select a.profile_id,a.first_name,a.address,count(b.ticket_id) as no_of_tickets from
air_passenger_profile a join air_ticket_info b on a.profile_id=b.profile_id join air_flight d on
b.flight_id=d.flight_id where d.airline_name='air01' group by a.profile_id having
count(b.ticket_id)<=all (select count(ticket_id) from air_ticket_info where flight_id in (select flight_id
from air_flight where airline_name='air01') group by profile_id) order by a.first_name;
```

```
mysql> select a.profile_id,a.first_name,a.address,count(b.ticket_id) as no_of_tickets from air_passenger_profile a join air_ticket_info b on a.profile_id=b.profile_id join air_flight d on b.flight_id=d.flight_id where d.airline_name='air01' group by a.profile_id having count(b.ticket_id)<=all (select count(ticket_id) from air_ticket_info where flight_id in (select flight_id from air_flight where airline_name='air01') group by profile_id) order by a.first_name;
```

profile_id	first_name	address	no_of_tickets
3	Jay	House No. 3, Anna Nagar-Pune-452314	1
4	Mona	21 Shivaji Park-Delhi-144985	1

2 rows in set (0.04 sec)

4. Write a query to display flight id,from location, to location and ticket price of flights whose departure is in the month of april.Display the records sorted in ascending order based on flight id and then by from location.

**Solution:**

```
select a.flight_id,a.from_location,a.to_location,b.price from air_flight a join air_flight_details b on a.flight_id=b.flight_id where monthname(b.flight_departure_date)='april' order by a.flight_id,a.from_location;
```

```
mysql> select a.flight_id,a.from_location,a.to_location,b.price from air_flight a join air_flight_details b on a.flight_id=b.flight_id where monthname(b.flight_departure_date)='april' order by a.flight_id,a.from_location;
```

flight_id	from_location	to_location	price
7774	Chennai	Delhi	2000.00
7775	Kolkata	Delhi	3800.00
7779	Kolkata	Pune	3000.00

```
3 rows in set (0.00 sec)
```

5. Write a query to display the no of services offered by each flight and the total price of the services.

The Query should display flight\_id, number of services as “No\_of\_Services” and the cost as “Total\_Price” in the same order. Order the result by Total Price in descending order and then by flight\_id in descending order. Hint: The number of services can be calculated from the number of scheduled departure dates of the flight

**Solution:**

```
select a.flight_id,sum(b.price) as total_price, count(a.flight_departure_date) as no_of_services from air_ticket_info a join air_flight_details b on a.flight_id=b.flight_id group by flight_id order by total_price desc,flight_id desc;
```

```
mysql> select a.flight_id,sum(b.price) as total_price, count(a.flight_departure_date) as no_of_services from air_ticket_info a join air_flight_details b on a.flight_id=b.flight_id group by flight_id order by total_price desc,flight_id desc;
```

flight_id	total_price	no_of_services
7777	8000.00	1
7775	7600.00	2
7772	5000.00	1
7776	3500.00	1
7779	3000.00	1
7778	3000.00	2
7773	3000.00	1
7771	1000.00	1

```
8 rows in set (0.01 sec)
```

6. Write a query to display profile id of passenger(s) who booked minimum number of tickets. In case of multiple records, display the records sorted in ascending order based on profile id.

**Solution:**

```
select a.profile_id from air_passenger_profile as a join air_ticket_info b on
a.profile_id=b.profile_id group by a.profile_id having count(ticket_id)=(select max(c)
from (select count(ticket_id) as c from air_ticket_info group by profile_id)t) order by
a.profile_id;
```

```
mysql> select a.profile_id from air_passenger_profile as a join air_ticket_info b on a.profile_id=b.pr
ofile_id group by a.profile_id having count(ticket_id)=(select max(c) from (select count(ticket_id) as
c from air_ticket_info group by profile_id)t) order by a.profile_id;
+-----+
| profile_id |
+-----+
| 1          |
+-----+
1 row in set (0.01 sec)
```

7. Write a query to display unique profile id,first name , email id and contact number of passenger(s) who travelled on flight with id 3178. Display the records sorted in ascending order based on first name.

**Solution:**

```
select a.profile_id,a.first_name,a.mobile_number,a.email_id from air_passenger_profile a
join air_ticket_info b on a.profile_id=b.profile_id where b.flight_id='7771' order by
a.first_name;
```

```
mysql> select a.profile_id,a.first_name,a.mobile_number,a.email_id from air_passenger_profile a join a
ir_ticket_info b on a.profile_id=b.profile_id where b.flight_id='7771' order by a.first_name;
+-----+-----+-----+-----+
| profile_id | first_name | mobile_number | email_id |
+-----+-----+-----+-----+
| 4          | Mona      | 8763546789   | mona@gmail.com |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```



8. Write a query to display the credit card type and no of credit cards used on the same type.

Display

The records sorted in ascending order based on credit card type Hint: Use CARD\_COUNT as alias name for no of cards.

**Solution:**

**Select card\_type, count(card\_type) card\_count from air\_credit\_card\_details group by card\_type order by card\_type;**

```
mysql> SELECT card_type, count(card_type) Card_Count
-> FROM air_credit_card_details GROUP BY card_type
-> ORDER BY card_type;
+-----+-----+
| card_type | Card_Count |
+-----+-----+
| credit    | 4          |
| debit     | 5          |
+-----+-----+
2 rows in set (0.00 sec)
```

9. Write a query to display the flights available in Morning, AfterNoon, Evening& Night. The

Query

should display the Flight\_Id, From\_Location, To\_Location , Departure\_Time, time of service as "Time\_of\_Service". Time of Service should be calculated as: From 05:00:01 Hrs to 12:00:00 Hrs -

Morning, 12:00:01 to 18:00:00 Hrs -AfterNoon, 18:00:01 to 24:00:00 - Evening and 00:00:01 to 05:00:00 - NightDisplay the records sorted in ascending order based on flight id

**Note : Couldn't Solve it**

**Solution:**

Select flight\_id, from\_location, to\_location, departure\_time, (SELECT DATE(D.datumTijd),  
CASE WHEN TIME(D.datumTijd) BETWEEN '05:00:01' AND '12:00:00' THEN Morning  
WHEN TIME(D.datumTijd) BETWEEN '12:00:01' AND '18:00:00' THEN Afternoon

```
WHEN TIME(D.datumTijd) BETWEEN '18:00:01' AND '24:00:00' THEN Evening
WHEN TIME(D.datumTijd) BETWEEN '00:00:01' AND '05:00:00' THEN Night
END
as time_of_service from air_flight)
```

**10.** Write a query to display the number of flights flying from each location. The Query should display the from location and the number of flights to other locations as “No\_of\_Flights”. Hint: Get the distinct from location and to location. Display the records sorted in ascending order based on from location.

**Solution:**

**Select from\_location, count(flight\_id) no\_of\_flights from air\_flight group by from\_location order by from\_location;**

```
mysql> SELECT from_location, count(flight_id) No_of_Flights FROM
-> air_flight GROUP BY from_location
-> ORDER BY from_location;
+-----+-----+
| from_location | No_of_Flights |
+-----+-----+
| Chennai      | 3             |
| Delhi        | 1             |
| Hyderabad    | 1             |
| Kolkata      | 3             |
| Pune         | 1             |
+-----+-----+
5 rows in set (0.00 sec)
```