**AIR CARGO ANALYSIS - SQL**

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| Created database Air\_cargo – |
| Imported available datasets in database – |
| 1. Create an ER diagram for the given airlines database. |
| 1. Write a query to create route\_details table using suitable data types for the fields, such as route\_id, flight\_num, origin\_airport, destination\_airport, aircraft\_id, and distance\_miles. Implement the check constraint for the flight number and unique constraint for the route\_id fields. Also, make sure that the distance miles field is greater than 0. |
| 1. Write a query to display all the passengers (customers) who have travelled in routes 01 to 25. Take data from the passengers\_on\_flights table. |
| 1. Write a query to identify the number of passengers and total revenue in business class from the ticket\_details table. |
| 1. Write a query to display the full name of the customer by extracting the first name and last name from the customer table. |
| 1. Write a query to extract the customers who have registered and booked a ticket. Use data from the customer and ticket\_details tables. |
| 1. Write a query to identify the customer’s first name and last name based on their customer ID and brand (Emirates) from the ticket\_details table. |
| 1. Write a query to identify the customers who have travelled by Economy Plus class using Group By and Having clause on the passengers\_on\_flights table. |
| 1. Write a query to identify whether the revenue has crossed 10000 using the IF clause on the ticket\_details table. |
| 1. Write a query to create and grant access to a new user to perform operations on a database. |
| 1. Write a query to find the maximum ticket price for each class using window functions on the ticket\_details table. |
| 1. Write a query to extract the passengers whose route ID is 4 by improving the speed and performance of the passengers\_on\_flights table. |
| 1. For the route ID 4, write a query to view the execution plan of the passengers\_on\_flights table. |
| 1. Write a query to calculate the total price of all tickets booked by a customer across different aircraft IDs using rollup function.      1. Write a query to create a view with only business class customers along with the brand of airlines. |
| 1. Write a query to create a stored procedure to get the details of all passengers flying between a range of routes defined in run time. Also, return an error message if the table doesn't exist. |
| 1. Write a query to create a stored procedure that extracts all the details from the routes table where the travelled distance is more than 2000 miles. |
| 1. Write a query to create a stored procedure that groups the distance travelled by each flight into three categories. The categories are, short distance travel (SDT) for >=0 AND <= 2000 miles, intermediate distance travel (IDT) for >2000 AND <=6500, and long-distance travel (LDT) for >6500. |
| 1. Write a query to extract ticket purchase date, customer ID, class ID and specify if the complimentary services are provided for the specific class using a stored function in stored procedure on the ticket\_details table.   Condition:  If the class is Business and Economy Plus, then complimentary services are given as Yes, else it is No |
| 1. Write a query to extract the first record of the customer whose last name ends with Scott using a cursor from the customer table. |

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