Customer that is most frequent in travel:

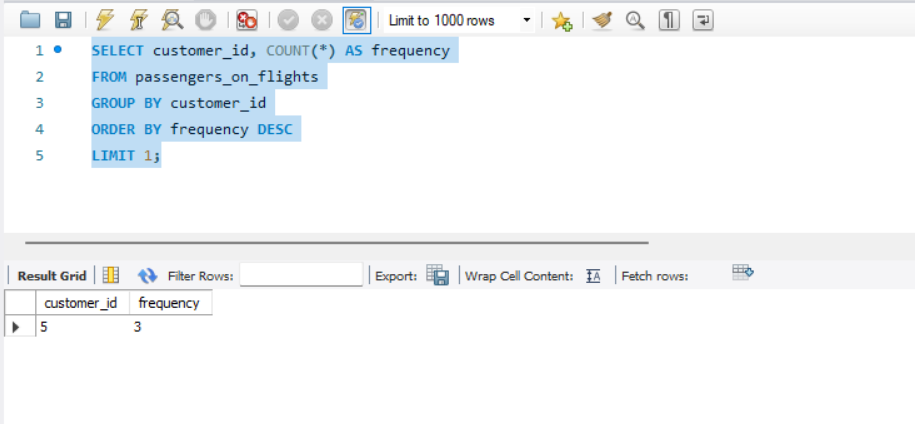
SELECT customer\_id, COUNT(\*) AS frequency

FROM passengers\_on\_flights

GROUP BY customer\_id

ORDER BY frequency DESC

LIMIT 1;



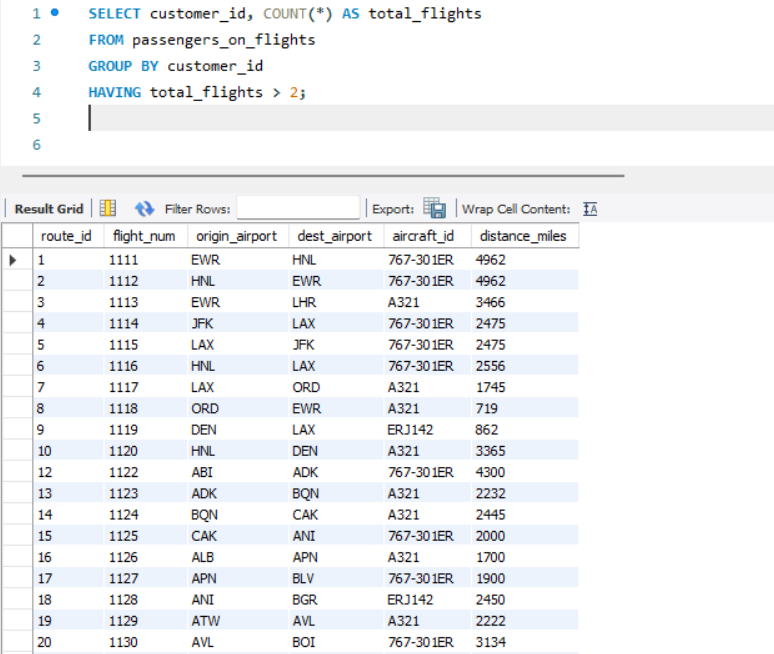
-- 1. Identify Regular Customers: Customers with more than 2 flights

SELECT customer\_id, COUNT(\*) AS total\_flights

FROM passengers\_on\_flights

GROUP BY customer\_id

HAVING total\_flights > 2;



-- 2. Analyze Busiest Route: Route with the highest number of passengers

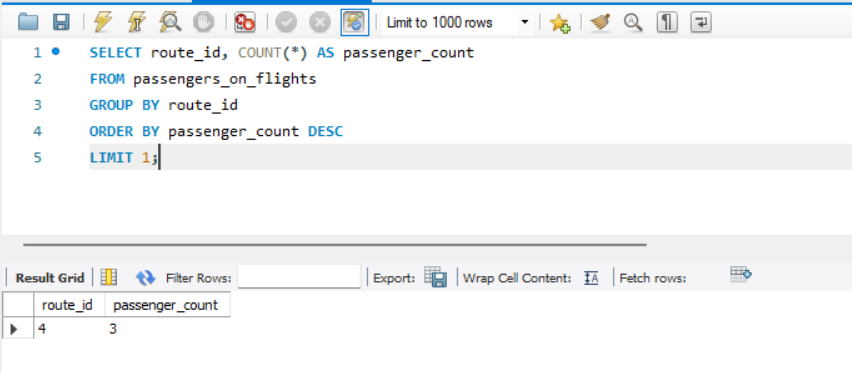
SELECT route\_id, COUNT(\*) AS passenger\_count

FROM passengers\_on\_flights

GROUP BY route\_id

ORDER BY passenger\_count DESC

LIMIT 1;



-- 3. Detailed Ticket Sales Analysis: Total revenue and tickets sold per brand

SELECT td.brand,

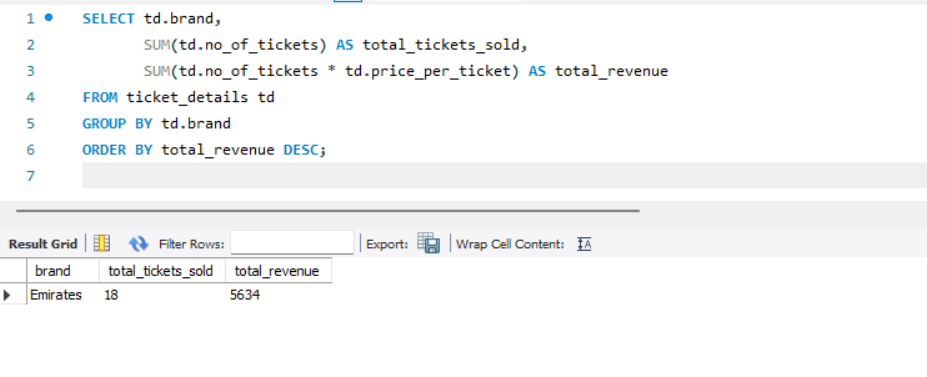
SUM(td.no\_of\_tickets) AS total\_tickets\_sold,

SUM(td.no\_of\_tickets \* td.price\_per\_ticket) AS total\_revenue

FROM ticket\_details td

GROUP BY td.brand

ORDER BY total\_revenue DESC;



-- 4. Total Revenue per Customer (optional insight for loyalty program)

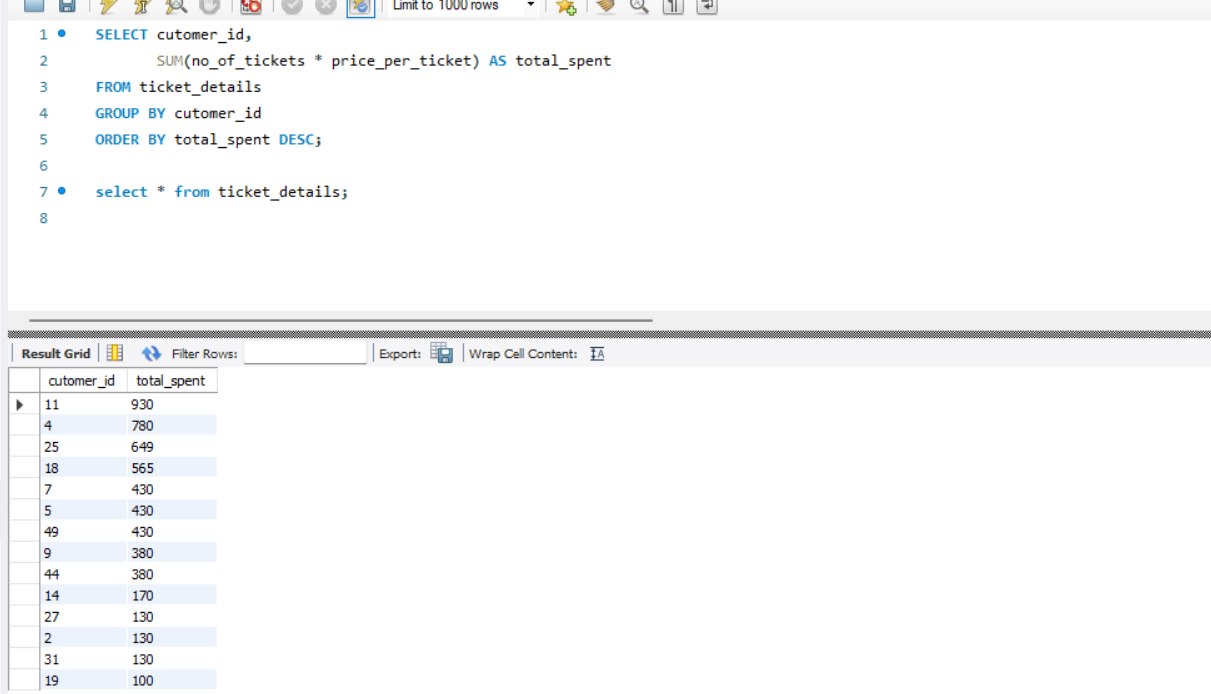
SELECT td.customer\_id,

SUM(td.no\_of\_tickets \* td.price\_per\_ticket) AS total\_spent

FROM ticket\_details td

GROUP BY td.customer\_id

ORDER BY total\_spent DESC;



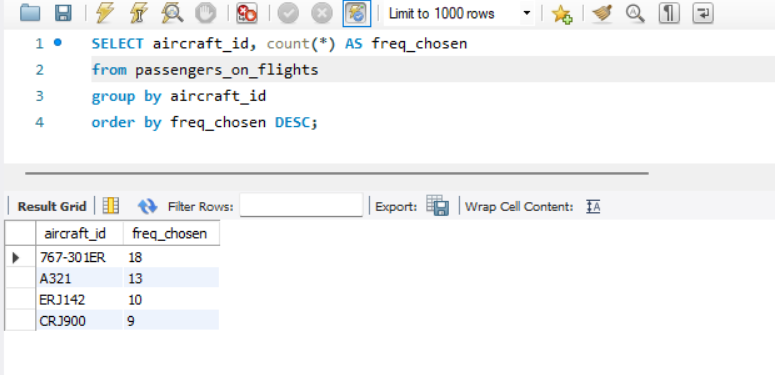
-- 5. Most Frequently Used Aircraft (helps determine fleet demand)

SELECT aircraft\_id, COUNT(\*) AS total\_usages

FROM passengers\_on\_flights

GROUP BY aircraft\_id

ORDER BY total\_usages DESC;



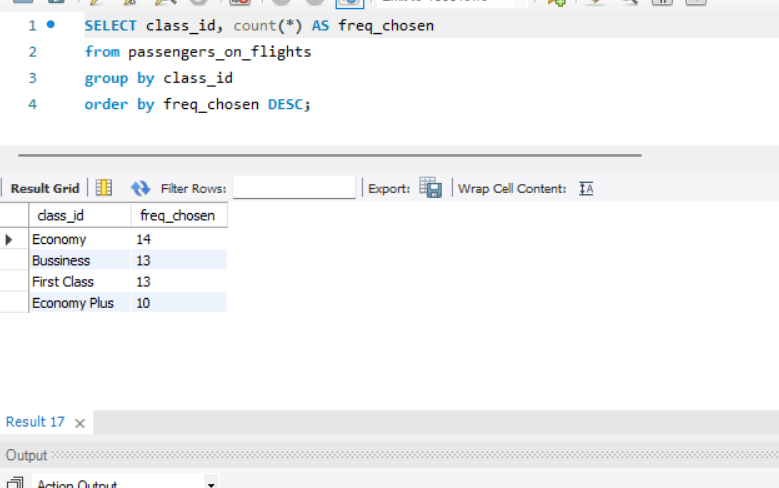
-- 6. Most Popular Class (Economy, Business, etc.)

SELECT class\_id, COUNT(\*) AS bookings

FROM passengers\_on\_flights

GROUP BY class\_id

ORDER BY bookings DESC;



-- 7. Route Details with Distance and Frequency

SELECT r.route\_id, r.origin\_airport, r.destination\_airport, r.distance\_miles,

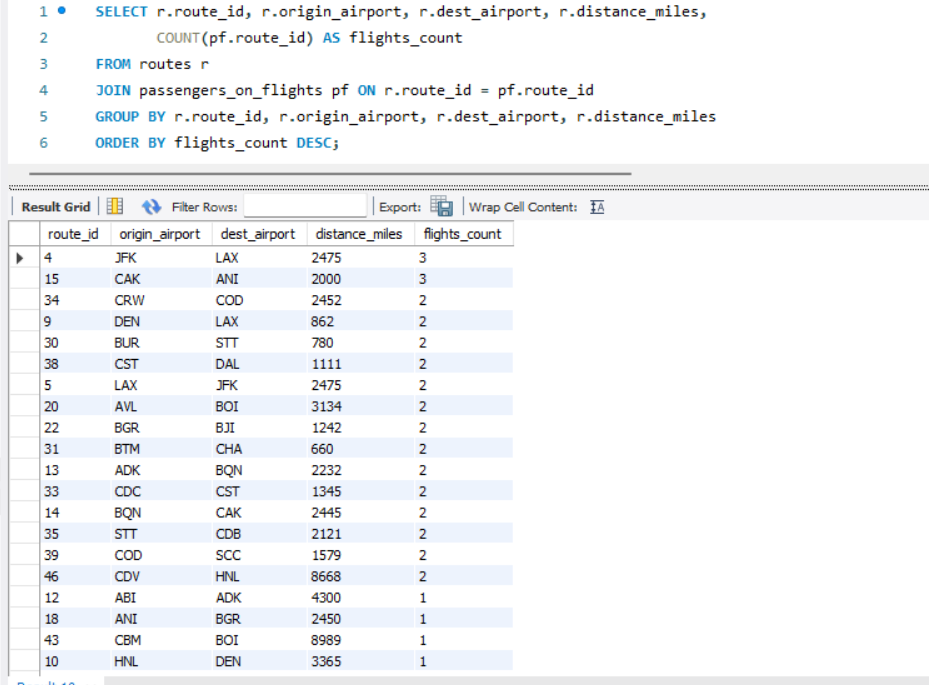
COUNT(pf.route\_id) AS flights\_count

FROM routes r

JOIN passengers\_on\_flights pf ON r.route\_id = pf.route\_id

GROUP BY r.route\_id, r.origin\_airport, r.destination\_airport, r.distance\_miles

ORDER BY flights\_count DESC;



Complete code:

CREATE TABLE customer (

customer\_id INT PRIMARY KEY,

first\_name VARCHAR(50),

last\_name VARCHAR(50),

date\_of\_birth DATE,

gender VARCHAR(10)

);

CREATE TABLE passengers\_on\_flights (

customer\_id INT,

aircraft\_id VARCHAR(10),

route\_id INT,

depart VARCHAR(5),

arrival VARCHAR(5),

seat\_num VARCHAR(5),

class\_id VARCHAR(20),

travel\_date DATE,

flight\_num INT

);

CREATE TABLE ticket\_details (

p\_date DATE,

customer\_id INT,

aircraft\_id VARCHAR(10),

class\_id VARCHAR(20),

no\_of\_tickets INT,

a\_code VARCHAR(10),

price\_per\_ticket DECIMAL(10, 2),

brand VARCHAR(50)

);

CREATE TABLE routes (

route\_id INT,

flight\_num INT,

origin\_airport VARCHAR(50),

destination\_airport VARCHAR(50),

aircraft\_id VARCHAR(10),

distance\_miles INT

);

1. Identify Regular Customers: Customers with more than 2 flights

SELECT customer\_id, COUNT(\*) AS total\_flights

FROM passengers\_on\_flights

GROUP BY customer\_id

HAVING total\_flights > 2;

2. Analyze Busiest Route: Route with the highest number of passengers

SELECT route\_id, COUNT(\*) AS passenger\_count

FROM passengers\_on\_flights

GROUP BY route\_id

ORDER BY passenger\_count DESC

LIMIT 1;

3. Detailed Ticket Sales Analysis: Total revenue and tickets sold per brand

SELECT td.brand,

SUM(td.no\_of\_tickets) AS total\_tickets\_sold,

SUM(td.no\_of\_tickets \* td.price\_per\_ticket) AS total\_revenue

FROM ticket\_details td

GROUP BY td.brand

ORDER BY total\_revenue DESC;

4. Total Revenue per Customer (optional insight for loyalty program)

SELECT td.customer\_id,

SUM(td.no\_of\_tickets \* td.price\_per\_ticket) AS total\_spent

FROM ticket\_details td

GROUP BY td.customer\_id

ORDER BY total\_spent DESC;

5. Most Frequently Used Aircraft (helps determine fleet demand)

SELECT aircraft\_id, COUNT(\*) AS total\_usages

FROM passengers\_on\_flights

GROUP BY aircraft\_id

ORDER BY total\_usages DESC;

6. Most Popular Class (Economy, Business, etc.)

SELECT class\_id, COUNT(\*) AS bookings

FROM passengers\_on\_flights

GROUP BY class\_id

ORDER BY bookings DESC;

7. Route Details with Distance and Frequency

SELECT r.route\_id, r.origin\_airport, r.destination\_airport, r.distance\_miles,

COUNT(pf.route\_id) AS flights\_count

FROM routes r

JOIN passengers\_on\_flights pf ON r.route\_id = pf.route\_id

GROUP BY r.route\_id, r.origin\_airport, r.destination\_airport, r.distance\_miles

ORDER BY flights\_count DESC;