4

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| --- |
| SELECT destination, COUNT(\*) AS number\_of\_flights  FROM charters  GROUP BY destination; |

5

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| --- |
| SELECT DISTINCT customer\_id  FROM charters  WHERE destination = 'ATL'  AND customer\_id NOT IN (  SELECT customer\_id  FROM charters  WHERE destination = 'STL'  ); |

6

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| --- |
| SELECT DISTINCT customer\_id  FROM charters  WHERE destination = 'ATL'  AND customer\_id IN (  SELECT customer\_id  FROM charters  WHERE destination = 'STL'  ); |

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| --- |
| SELECT DISTINCT customer\_id  FROM charters  WHERE (date = '2023-02-05' OR date = '2023-02-06')  AND outstanding\_balance > 0; |

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| --- |
| SELECT SUM(outstanding\_balance) AS total\_outstanding  FROM customers; |

9

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| --- |
| SELECT AVG(distance) AS average\_distance  FROM charters; |
|  |

10

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| --- |
| SELECT crew\_member\_name  FROM charters  JOIN crew ON charters.crew\_id = crew.crew\_id  WHERE destination = 'TYS'; |

11

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| --- |
| SELECT DISTINCT name  FROM (  SELECT crew\_member\_name AS name  FROM charters  JOIN crew ON charters.crew\_id = crew.crew\_id  WHERE destination = 'TYS'  UNION  SELECT passenger\_name AS name  FROM charters  JOIN passengers ON charters.passenger\_id = passengers.passenger\_id  WHERE destination = 'TYS'  ) AS all\_involved; |

12

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| --- |
| ELECT name, role  FROM (  SELECT crew\_member\_name AS name, 'CREW' AS role  FROM charters  JOIN crew ON charters.crew\_id = crew.crew\_id  WHERE destination = 'TYS'  UNION  SELECT passenger\_name AS name, 'PASSENGER' AS role  FROM charters  JOIN passengers ON charters.passenger\_id = passengers.passenger\_id  WHERE destination = 'TYS'  ) AS all\_involved  ORDER BY role, name; |

13

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| --- |
| SELECT charter\_date, customer\_last\_name, charter\_distance, charge\_per\_mile,  (charter\_distance \* charge\_per\_mile) AS mileage\_charge  FROM charters  JOIN customers ON charters.customer\_id = customers.customer\_id  WHERE charter\_date > '2023-02-09'  ORDER BY charter\_date, customer\_last\_name; |

13

|  |
| --- |
| SELECT charter\_date, customer\_last\_name, charter\_distance, gallons\_per\_mile,  (charter\_distance \* gallons\_per\_mile) AS total\_gallons  FROM charters  JOIN customers ON charters.customer\_id = customers.customer\_id  WHERE charter\_date > '2023-02-09'  ORDER BY charter\_date, customer\_last\_name; |

14

|  |
| --- |
| -- Step 1: Find the plane with the most miles  WITH PlaneMiles AS (  SELECT aircraft\_id, SUM(charter\_distance) AS total\_miles  FROM charters  GROUP BY aircraft\_id  ORDER BY total\_miles DESC  LIMIT 1  )  -- Step 2: Get the age of the airframe and engines  SELECT aircraft\_id, airframe\_age, left\_engine\_age, right\_engine\_age  FROM aircraft  WHERE aircraft\_id = (SELECT aircraft\_id FROM PlaneMiles); |

15

|  |
| --- |
| -- Step 1: Calculate total miles in February for the heavily used plane  WITH FebruaryMiles AS (  SELECT SUM(charter\_distance) AS february\_miles  FROM charters  WHERE aircraft\_id = 'heavily\_used\_plane\_id' AND MONTH(charter\_date) = 2  )  -- Step 2: Retrieve airframe age  SELECT february\_miles / airframe\_age AS fraction\_of\_airframe\_age  FROM FebruaryMiles, aircraft  WHERE aircraft\_id = 'heavily\_used\_plane\_id'; |