CS3563: DBMS-II
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Assignment III
Advanced SQL Queries

March 29, 2019

Submission Date: April 5th, 2019, 11:59 pm

1. Write a query to list the distinct flight numbers of all flights from New York to Chicago by American Central Airlines Inc. on Sundays.
2. Find the number of flights from New York to Chicago by different Airlines in a week in descending order.
3. Print the names of all airlines that ever flew more than 1,000 flights in a single day (No Duplicates).
4. Print the names of all airlines that ever flew less than 10,000 flights in a week (No Duplicates).
5. Print the names of all airlines and their cancellation rate in descending order that had cancellation rate more than 0.75% of their flights out of Chicago canceled.
6. Find the day of the week with the longest average arrival delay. Return the name of the day and the average delay.
7. Write a query to list all cities that cannot be reached from New York through a direct flight but can be reached with one stop (i.e., can be reached with two flights).
8. Write a query to list all cities that can neither be reached from New York through a direct flight nor with one stop (i.e., can be reached with three or more flights).
9. Find all origin cities that only serve flights shorter than 4 hours. Return only the names of the cities. List each city only once in the result.

10. Print the airlines, month number, and summation of their arrival delays in each month, whose arrival delay is greater than 50 at least once.
11. Write a query to output unique flight numbers of flights whose tail number ends with letter "D".
12. Considering only even days of a month, write a query to output the count of flights that travel a distance greater than 600 kms to reach Arizona.

13. Write a query to find the average number of flights that reach between 3:00 pm to 6:00 pm to the state Colorado in each month.
14. Print each airline and the longest distance traveled by it, along with the origin and destination, in ascending order of the distance.
15. Write a query to output "DestStateFips", "DestStateName" of destinations whose destination state name starts with the letter "S".
16. Write a query to find the flight number whose departure delay is highest in each month.

17. Get the names of all airlines which had more than 3 diverted flights in a month.
18. Get flight numbers and airline name of flights which were diverted from San Francisco, CA (i.e. Had destination SFO but were diverted to some other airport).
19. Find the day of the week which has the most number of cancellations.
20. Get the flight date, airline name and origin airport of flights that were delayed due to weather.