S307 – Homework 4

Background Information: This is data for a logistics company.  They facilitate moving freight (loads) from city to city.  The Carriers, are people who own trucking companies.  The Drivers, are employees of Carriers, and drive the trucks.  The Loads are just that. Loads of freight that need to be hauled from a pickup city to a deliver city.  The Customers, are companies who own the loads of freight that need to be moved.  The Brokers are the middleman.  They help negotiate the deal between the Customers who need freight hauled, and the Carriers who have the Drivers and trucks to haul the freight.  The Brokers generate Itineraries for the Carriers/Driver.  Each itinerary will list the load(s) on the itinerary.  Please note an itinerary for a driver can contain multiple loads for them to pick up and deliver.

1. Write a query to show customer name, delivery city, and the number of loads, for any load that had a total price of less than $200,000. For this query, we will define price using the pallet weight, number of pallets, and price per pound. Also make sure the number of pallets on the load are at least 15. Order your results by customer name ascending.

2. For this query, we’ll stick with pricing each load using the price per pound, pallet weight, and number of pallets. Write a query to show the itinerary id, the “Itinerary Price” (based on pallet weight, price per pound, and number of pallets), and a “Percent of Total” for each itinerary. Order your results by the “Itinerary Price” descending.

3. Show the customer name and the top load price for that customer. A customer will ship several loads, but we want to know the most expensive load for each customer. Call the most expensive load the “Top Load Price”. Price will once again be calculated using pallet weight, price per pound, and number of pallets. Order your results by customer name ascending.

4. For this query, we will concentrate on “refrigerated” loads. When a broker posts a load, they have a load\_price that they would like to pay a carrier. Typically the carrier charges by the number of pallets or the weight of the load, but the load\_price in the load table gives the broker and carrier a starting point in their negotiations of pricing the load.

Write a query to show load id, pickup city, and load price (use the load\_price field) for refrigerated loads. The criteria is all refrigerated loads that have a load price greater than the average load price of all refrigerated loads *from the pickup city*. For a load from Omaha to make it into the results, it has to be refrigerated, and have a load\_price greater than the average of refrigerated loads from Omaha. Once again, use the load\_price from the load table in your output and criteria for this query. Order your results by the load price descending.

5. Each of the carriers in the database have to have a carrier license. Take a look at the date each carrier obtained his or her carrier license in the CARRIER table. Write a query to show the carrier name and all customer names they carried loads for. Your criteria should be only for carriers who have maintained a carrier license at least as long as the average duration of time all carriers have had a license. Order your results by carrier name ascending, and customer name descending.

6. Take a look at both brokers and carriers in the BROKER and CARRIER table. Each has a license date. There is a set of brokers and carriers who have had their licenses for at least 10 years. We are going to use this group in our criteria. We are interested in pallet weight, more specifically the total pallet weight shipped between these 2 groups (brokers who have had a license for at least 10 years and carriers who have had a license for at least 10 years). This criteria is for the sub query.

Write a query to show the broker name for all brokers who shipped loads with a pallet weight at least as heavy as the loads shipped between 10 year brokers and carriers. The results of your query should NOT include the broker names of the “10 year or more” brokers.

7. Write a query to show the load\_id, the “Old Price” of the load based on price per pallet and number of pallets. We also want to show a “New Price”. If the load type is ‘dry’ and the pickup city is either Chicago or Baltimore OR the deliver city is Boise, calculate the new price with a 22 percent increase. If the load type is ‘refrigerated’ and the pickup city is Jersey City or Chesapeake OR the deliver city is Detroit, calculate the “New Price” with a 5 percent discount. Otherwise, just calculate the “New Price” the same way you calculated “Old Price” which is based on price per pallet and number of pallets. Order your results by “New Price” ascending.

8. Write a query to show customer names of the Top 10 customers who have shipped the most loads with us. You should find this is actually 12 customers, because we have several who shipped 4 loads. Order the results by customer name ascending.

9. For this query, to simplify things, we will use the load\_price from the load table to calculate price. Write a query to show customer name, “Regular Price” (based on the load\_price), and a Running Total (based on load\_price) for each customer.

A correct query will show the following as the first 5 lines in your results:

