

CSE 111 – DATABASE SYSTEMS

Lab 6

In this lab session you have to write 15 SQL queries for the TPCH database created and populated in the previous labs. The queries are the following:

1. Find the supplier-customer pair(s) with the most expensive (`o_totalprice`) order(s) completed (F in `o_orderstatus`). Print the supplier name, the customer name, and the total price.
2. Find how many distinct customers have at least one order supplied exclusively by suppliers from **AFRICA**.
3. Find the distinct parts (`p_name`) ordered by customers from **ASIA** that are supplied by exactly 3 suppliers from **AFRICA**.
4. Find the nation(s) with the least developed industry, i.e., selling items totaling the smallest amount of money (`l_extendedprice`) in 1994 (`l_shipdate`).
5. Find the number of customers who had at most three orders in **November 1995** (`o_orderdate`).
6. Find how many suppliers from **PERU** supply more than 40 different parts.
7. Find the total quantity (`l_quantity`) of line items shipped per month (`l_shipdate`) in **1997**. Hint: check function `strftime` to extract the month/year from a date.
8. Find how many suppliers have less than 50 distinct orders from customers in **EGYPT** and **JORDAN** together.
9. Find how many suppliers supply the least expensive part (`p_retailprice`).
10. Find the nation(s) having customers that spend the largest amount of money (`o_totalprice`).
11. Find the region where customers spend the largest amount of money (`l_extendedprice`) buying items from suppliers in the same region.
12. Find how many parts are supplied by exactly one suppliers from **UNITED STATES**.
13. Find the nation(s) with the largest number of customers.
14. Compute, for every country, the value of economic exchange, i.e., the difference between the number of items from suppliers in that country sold to customers in other countries and the number of items bought by local customers from foreign suppliers in **1997** (`l_shipdate`).
15. Compute the change in the economic exchange for every country between **1996** and **1998**. There should be two columns in the output for every country: **1997** and **1998**. Hint: use `CASE` to select the values in the result.

In order to complete the lab you have to demo your queries to the TA in the lab.