CSE 111 – DATABASE SYSTEMS
Lab 3

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 number of line items that have `l_shipdate` smaller than `l_commitdate`.

2. What is the minimum, maximum, and total account balance among the customers in the "`FURNITURE`" market segment?

3. What is the address, phone number, and account balance of "`Customer#000000227`"?

4. What is the name of the suppliers with an account balance larger than `$8,000`?

5. Find all the items with the returnflag not set to "`Y`" on the receipt date of `September 22, 1995`. Print `l_receiptdate`, `l_returnflag`, `l_extendedprice`, and `l_tax` for every line item.

6. Find the total account balance of the suppliers from every nation. Print the nation name and the total account balance.

7. Find the total price `o_totalprice` of orders made by customers from `AMERICA` in 1995.

8. What are the nations of the customers that made orders in `December 1994`? Print every nation only once and sort them in alphabetical order.

9. How many line items ordered by `Customer#000000227` were received every month? Print the number of ordered line items corresponding to every (year, month) pair from `l_receiptdate`.

10. Find the name of the suppliers from `ASIA` who have more than `$5,000` on account balance. Print the supplier name and their account balance.

11. Find how many `1-URGENT` priority orders have been posted by customers from `ROMANIA` between 1993 and 1997, combined.

12. Find the total number of line items on orders with priority `3-MEDIUM` supplied by suppliers from `ARGENTINA` and `BRAZIL`. Group these line items based on the year of the order from `o_orderdate`. Print the year and the count. Check the `substr` function in `SQLite`.

13. Find the number of suppliers that provided a discount of `10%` for one of their line items. For every such supplier, print its name and the number of such discounted line items.

14. Find the number of orders having status `F`. Group these orders based on the region of the customer who posted the order. Print the region name and the number of status `F` orders.

15. Find the total account balance of all the customers from `AMERICA` in the `FURNITURE` market segment.

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