Lab 1: SQL Practice

Due date: Thursday, April 2, 11:00am.

Lab Assignment

Oracle and Oracle accounts

You will be issued individual Oracle accounts at the end of the first class, or at the beginning of the lab period. Please, use these accounts for all individual coursework.

This assignment is best completed using sql*plus, Oracle's command-line environment for communicating with the database back-end. Instructions on the use of sql*plus can be found here:

http://www.csc.calpoly.edu/~dekhtyar/365-Fall2007/lectures/lec05.365.pdf

Assignment Preparation

This is an individual lab. Each student has to complete all work required in the lab, and submit all required materials **exactly as specified** in this assignment.

The assignment uses a modified version of one of the datasets I used in CSC 365 last academic year. The new dataset, `EXTENDED BAKERY` removes the portion of the old `BAKERY` dataset, and replaces it with some new structures.

The full description of the dataset is distributed as a separate document. The `EXTENDED BAKERY` dataset consists of the following files:

Filename	Explanation
`EB-setup.sql`	database setup script (`CREATE TABLE` statements)
`EB-cleanup.sql`	`DROP TABLE` statements
`EB-insert.sql`	runs all other `...-insert.sql` scripts
`EB-build-employee.sql`	inserts data into the `Employees` table
`EB-build-goods.sql`	inserts data into the `Goods` table
`EB-build-items.sql`	inserts data into the `Items` table
`EB-build-location.sql`	inserts data into the `Location` table
`EB-build-receipts.sql`	inserts data into the `Receipts` table
`EB-verify.sql`	reports tuple counts in all database tables

These files can be downloaded one-by-one, or as a single zip file from the following URL:

http://wiki.csc.calpoly.edu/datasets/wiki/ExtendedBakery1000

Please make sure you read the README file for the EXTENDED BAKERY dataset (available from http://wiki.csc.calpoly.edu/datasets/wiki/ExtendedBakery) carefully before you start your work. To set up your database, run the following commands:

```
> $ORACLE_HOME/bin/sqlplus  <yourAccount>@ora10g

SQL> start EB-setup.sql

...

SQL> start EB-insert.sql
```

Note, the last command, may take some time. You can run `start EB-verify.sql` command to verify that all data is there (Tuple counts are available in the EXTENDED BAKERY description document).

SQL queries

Write an SQL script containing SQL statements answering the following information requests.

1. Find all employees for the San Luis Obispo store. Report their names and positions.

2. Report all dates on which the San Luis Obispo store had at least one sale. Order the dates chronologically, and report each date only once.

3. Report all sales that occurred in the San Luis Obispo store on January 18 2000 (`18-JAN-00`). For each sale, report the receipt number and the name of the employee who conducted the sale.

4. Report all sales that occurred in the San Luis Obispo store on January 18 2000 (`18-JAN-00`). For each sale, report the receipt number, the name of the employee who conducted the sale and the total amount of the purchase.

5. List all the least expensive items on the menu. For each type of item list its name (Flavor, Food) and type (drink or pastry).

6. For each California location list the total number of recorded sales (receipts) in the database. For each location supply store number, street address and city. Output the results ordered by the total number of sales.

7. For each store with more than three employees report the total sales amount. Report the store number, city and state and the total sales amount. Sort the output by the total sales amount.

8. Find the bakery/bakeries that sold the largest number of Almond Twists. Report store number, city, state, street address and the number of twists sold.

9. For each type (the value of `Food` attribute) of pastry (but not drink)[1], report the total amount in sales from California stores. Sort results by the total sales amount.

10. Find the employee(s) responsible for the largest number of sales. Report their name(s) and location(s) (store number, city, state, street).

Submission Instructions

Put all the queries in a single file. Name the file `lab1.sql`.

Submit the file using `handin` as follows:

```
handin dekhtyar lab01-366  lab1.sql
```

[1] Check the values in the `Goods.Type` attribute