Lab 1: SQL Practice

Due date: Monday, January 4, end of lab period.

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 be‘st 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 goods that cost between \$3.00 and \$5.00. For each good report its full name (flavor, food) and its price. Report the goods in the ascending order by their price.
2. List all sales that occurred on January 1 ('01-JAN-00') in Arizona ('AZ') stores. For each sale, output the receipt number, the store number, the city, state and street adress of the store. Sort the output by the receipt number.

3. Find all items purchased on the receipt number 200. For each item report its full name (Flavor, Food), price and quantity purchased.

4. Find the total cost of the purchase with the receipt number 200.

5. Report all sales of Cheese Croissants that occurred in Los Angelos stores. For each sale (receipt), report the sale date, receipt number and the quantity purchased, and the street address of the store. Report sales in chronological order.

6. Report all sales of Cheese Croissants that occurred in California stores between January 10, 2000 (`"10-JAN-00"`) and January 21 (`"21-JAN-00"`) inclusively. For each sale specify sale date, store number, city and street address, as well as the quantity purchased. Report sales in chronological order.

7. List the most expensive items on the menu. Output full name (food, flavor) and type.

8. Report average number of sales per day for the San Francisco store.

9. For each day, report the number of sales for all California stores (report just one number per day, totaling the sales from all stores). Output the sales numbers ordered by day.

10. Report all goods (flavor, food) that **had no sales** in the San Luis Obispo store from January 15 ('15-JAN-00') to January 25 ('25-JAN-00') inclusively.

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  lab1.sql
```